OLD!

THE ESSENTIAL GUIDE TO CLASSIC GAMES

retro GAMER

AMSTRAD | COMMODORE | SEGA | NINTENDO | AT | SONY | COIN-OP | MOBILE

PARAPPA THE RAPPER

DISCOVER HOW A PAPER-THIN DOG BECAME A RHYTHM ACTION SENSATION

HANDS-ON WITH THE POLYMEGA

WILL THIS SUPER-DELUXE SYSTEM REINVENT YOUR GAME COLLECTION?

ARCADE HEAVEN

HOW NUMSKULL IS REINVENTING CLASSIC COIN-OP CABINETS

THE EVIL DEAD

RICHARD LEINFELLNER ON CONVERTING SAM RAIMI'S VIDEO NASTY TO C64

THE STORY OF PRINCE OF PERSIA THE SANDS OF TIME™

JORDAN MECHNER, PATRICE DÉSILETS AND PIERRE-SYLVAIN GIRES ON RESURRECTING AN ICONIC HERO FOR TWO NEW GENERATIONS

THE EVOLUTION OF **GRIBBLY'S DAY OUT**

ANDREW BRAYBROOK EXPLAINS HOW HIS C64 ODDITY TRANSFORMED

THE HISTORY OF **GREEN BERET**

WE GO BEHIND THE SCENES OF KONAMI'S COLD WAR CLASSIC

ALSO INSIDE

REG STEVENS
BALLZ 3D ST BRIDE'S
GRAND PRIX SIMULATOR 2
PHARAOH PSYCHO PINBALL

FUTURE
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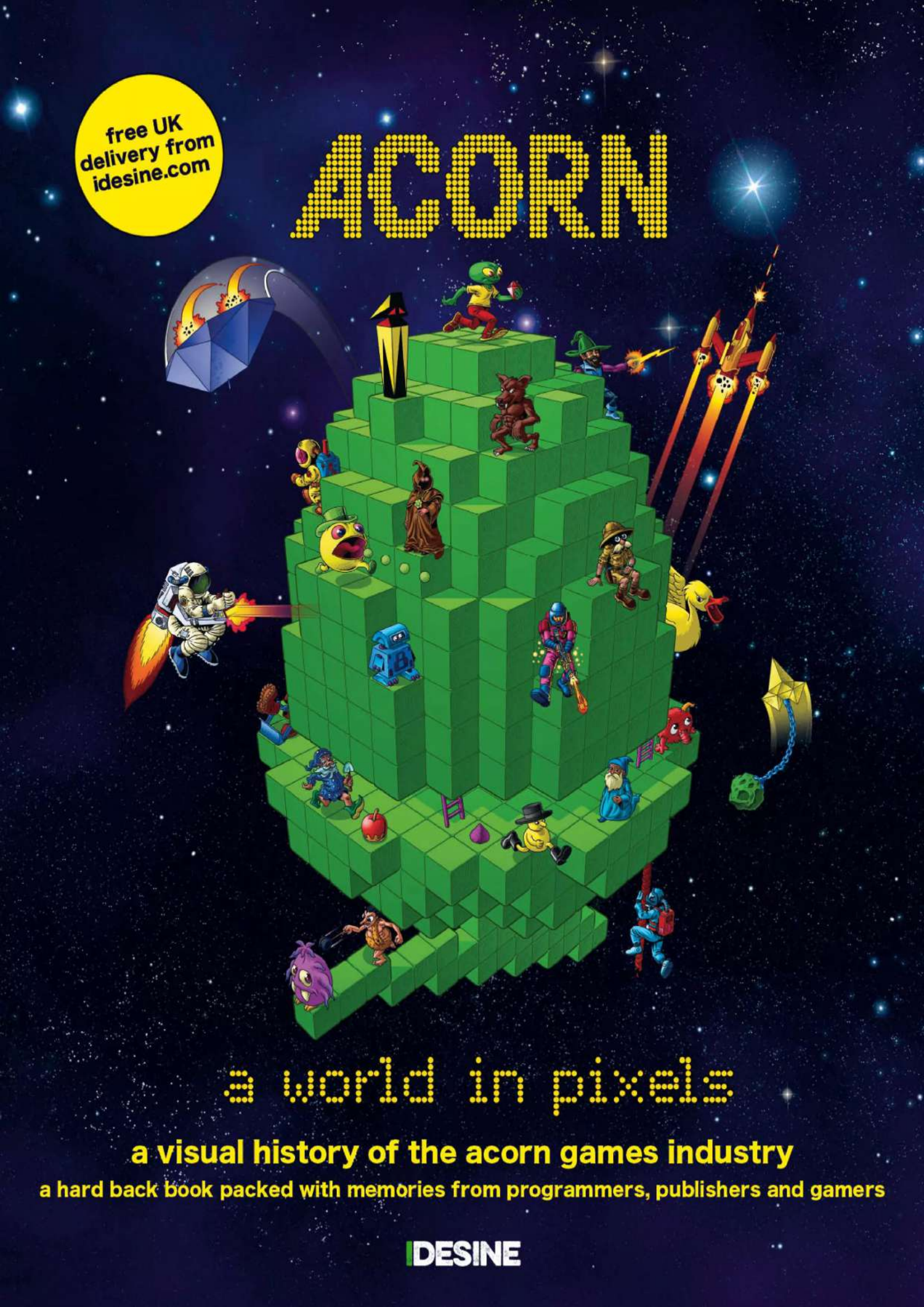
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THE RETROBATES

IF YOU COULD MINIATURISE ANY ARCADE MACHINE WHAT WOULD IT BE AND WHY?

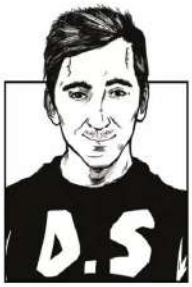
DARRAN JONES

I'm clearly going to go for *Strider*. That way I could take Capcom's amazing game with me wherever I go.

Expertise:
Juggling a gorgeous wife, two beautiful girls, one SNES-loving cousin and an award-winning magazine, all under one roof!

Currently playing:
Star Wars: Squadrons

Favourite game of all time:
Strider



DREW SLEEP

A mini *Dance Dance Revolution* that you can place at a desk. Instead of your feet, you'd use two fingers on one hand, kind of like those teeny-tiny skateboards you used to get. I think that could work!

Expertise:
Enduring frigid home offices

Currently playing:
Street Fighter V: Champion Edition

Favourite game of all time:
Final Fantasy VIII

NICK THORPE

Weirdly, rather than any videogame I'd really like to have a mini version of Namco's *Cosmo Gang*, an electromechanical gun game.

Expertise:
Owning five Master Systems and a Mark III

Currently playing:
Crash Bandicoot 4: It's About Time

Favourite game of all time:
Sonic The Hedgehog

ANDY SALTER

Dragon's Lair, so it can eat up all of my 50 pence pieces.

Expertise:
Modding games, no 'vanilla' versions for me, thanks!

Currently playing:
Mount and Blade II: Bannerlord

Favourite game of all time:
Rome: Total War

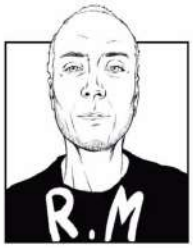
DAVID CROOKES

Sega Rally, although I'd be driven mad at not being able to squeeze behind the wheel.

Expertise:
Amstrad, Lynx, adventures, Dizzy, and PlayStation (but is it retro? Debate!)

Currently playing:
Prince Of Persia: The Sands Of Time

Favourite game of all time:
Broken Sword



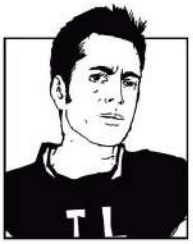
RORY MILNE

It would have to be Atari's classic vector shooter *Tempest*. The modern conversions are perfect ports, but they lack the rotary controller that made the original so immersive.

Expertise:
The game that I'm writing about at the time of writing

Currently playing:
Dan Dare III: The Escape

Favourite game of all time:
Tempest



IAIN LEE

Popeye. My first and greatest arcade love.

Expertise:
Buying overpriced stuff on eBay then never touching it

Currently playing:
I'm trying to play *Among Us* but people keep leaving the game

Favourite game of all time:
Elite (BBC Model B)

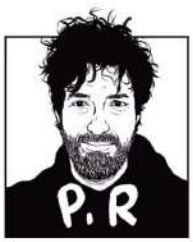
HARETH AL BUSTANI

The Outfoxies. Before *Super Smash Bros*, this fantastically outlandish arena fighting game set the template. And after the year we've had, the people deserve a miniaturised *Outfoxies*!

Expertise:
Juggling obscure games, words and guitar and seeing where it all lands

Currently playing:
Crusader Kings III

Favourite game of all time:
The Secret Of Monkey Island



PAUL ROSE

I'd shrink *Galaxian 3: Project Dragoon*. It'd still be big enough for my ham-fisted hands to play.

Expertise:
Winging it

Currently playing:
Star Wars: Squadrons

Favourite game of all time:
Half-Life 2

LOADING...

I can still remember the excitement around *The Sands Of Time* when it was first announced. I was working on *games™* at the time, and as a fan of the original game I was keen to see how Ubisoft's new reinvention was shaping up. While I didn't go on any press trips to see it ahead of release, I was able to 'accidentally' (on purpose, of course) walk in on a private meeting that was being held with one of Highbury's other magazines. Everything about it looked great, and I think the thing I really took away from it was how well it captured the essence of the game I'd first encountered on my Master System.

It's incredibly satisfying, then, to not only share the story of *Prince Of Persia: The Sands Of Time* with you, but to also give you a brief insight into next year's remake, courtesy of our friends over at *GamesRadar+*. A big thanks as well to both Jordan Mechner and Patrice Désilets for revealing how the original 3D reimagining came to be.

I've one more thanks to give this issue and that's to you, our loyal readers. You've probably noticed already, but this issue sees us going back up to 116 pages and it's all thanks to you. The support you've shown us both through your subscriptions and your kind letters has been incredibly important, and we appreciate it immensely.

Stay safe, and enjoy the magazine!

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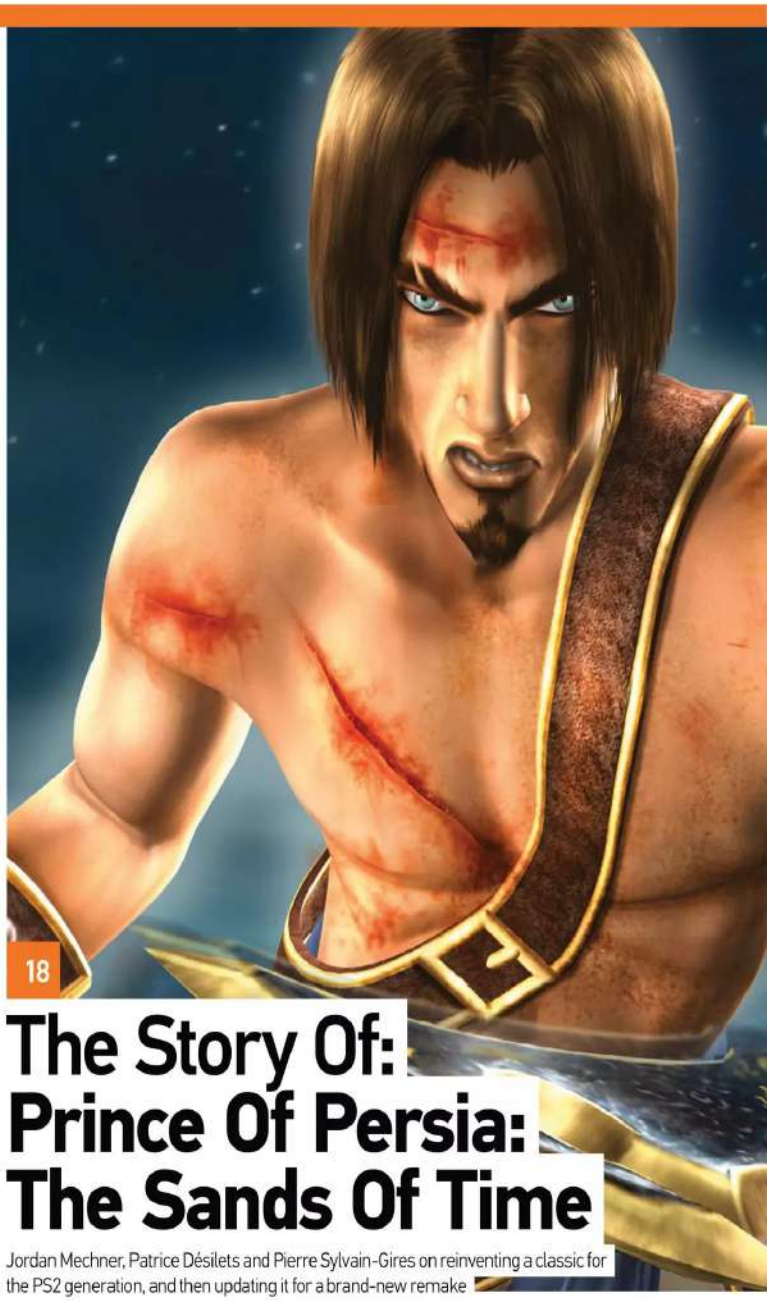

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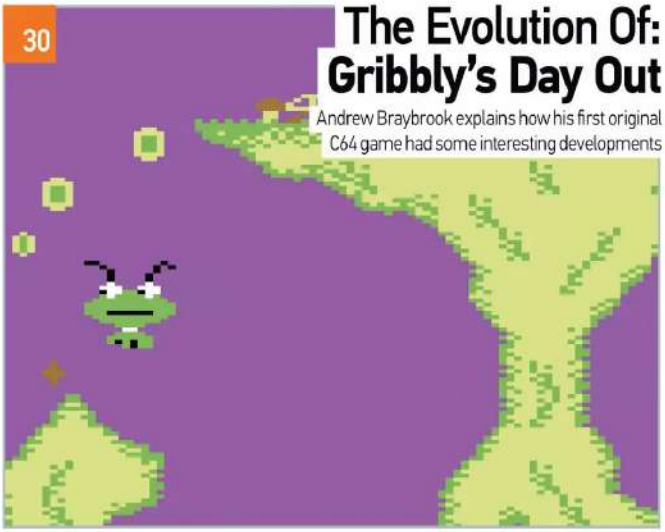

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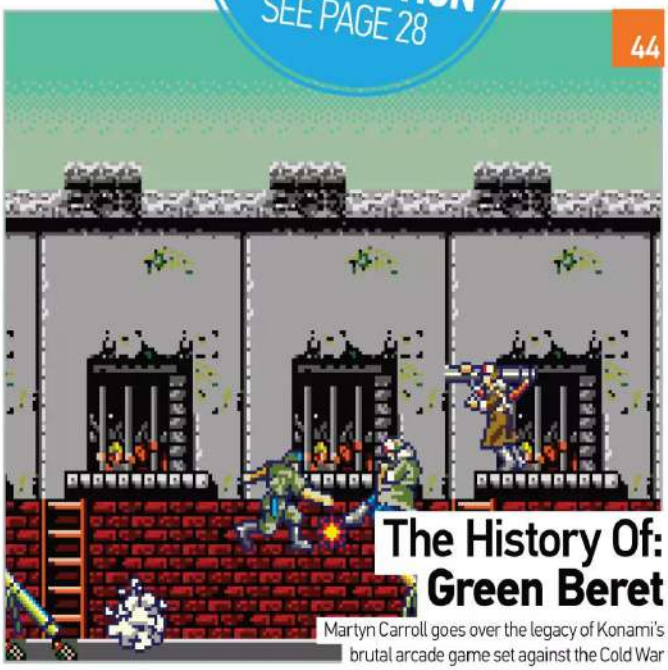

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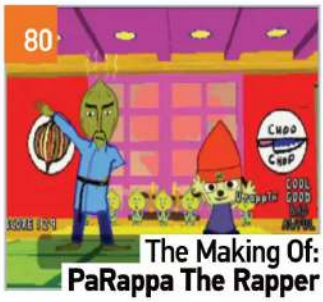

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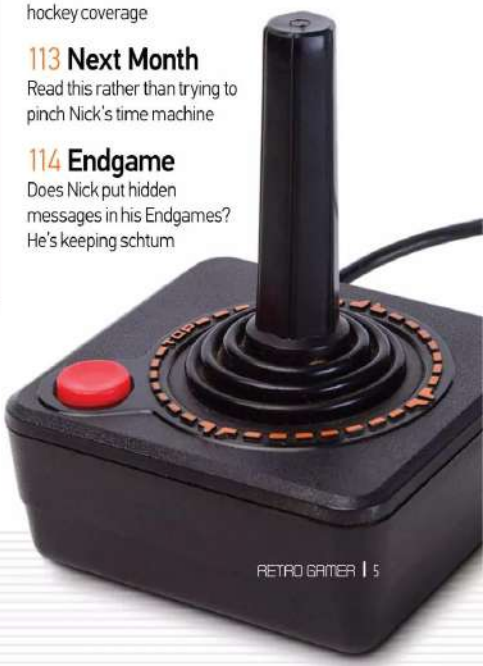

"Great! I think Microsoft has been a good parent company for gaming IPs, and they don't have a grudge against me, so maybe I will be able to reengage with some of my old titles"
John Carmack

HOW MUCH?!

Microsoft buys Zenimax Media for an astonishing $7.5 billion

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We cast our eyes over one of gaming's biggest ever acquisitions

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It's December, it's 2003 and Nick's discovered an absolutely jam-packed Christmas bonanza

Microsoft certainly isn't afraid to make hefty purchases in order to strengthen its position in the console market, but its most recent acquisition makes its 2002 purchase of Rare for $375 million look like chump change.

On 21 September – the day before its new Xbox Series X and S consoles were available for preorder – Microsoft's Phil Spencer revealed that the company had just purchased Bethesda's parent company, Zenimax Media for a staggering $7.5 billion. To put that in context, that's $3 billion more than Disney paid to acquire Lucasfilm in 2012 and 13.84 times what it paid for Rare back in 2002 (adjusted for inflation, of course).

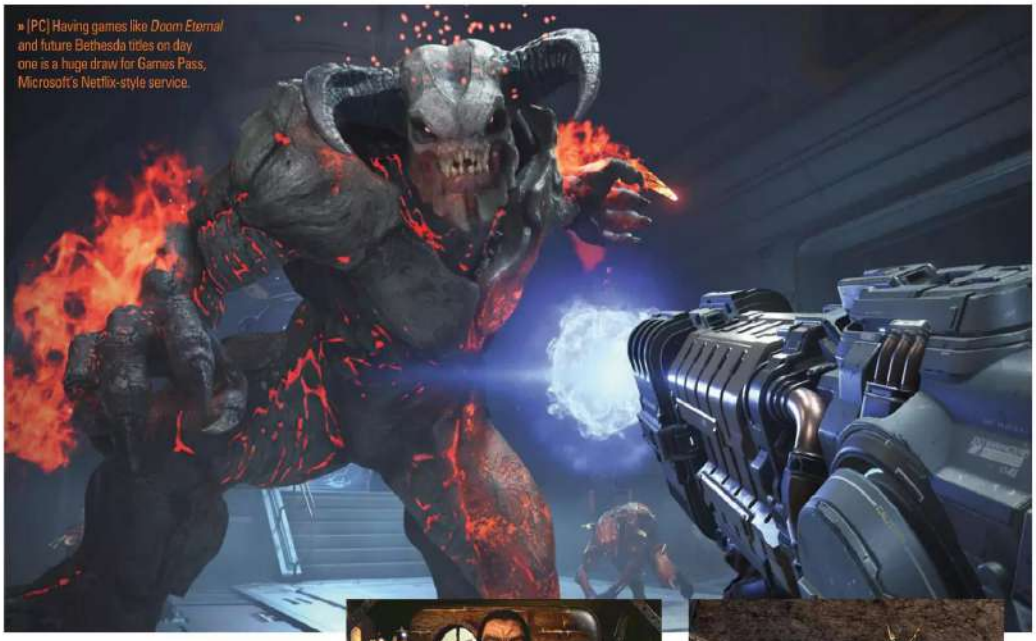
It means that in one fell swoop Microsoft has acquired several critically acclaimed games studios, including id Software, MachineGames, Bethesda Game Studios, Arkane Studios and Shinji Mikami's Tango Gameworks, as well as everything the studios own. In terms of franchises, enduring classics like *Doom*, *Wolfenstein*, *Fallout* and *The Elder Scrolls* series are now fully owned by Microsoft, as well as popular modern franchises such as *Rage*, *Dishonored* and *The Evil Within*. It's arguably one of the biggest gaming acquisitions of all time and the unexpected news sent shockwaves through the industry when it was revealed.

It's currently unclear what this means for PS5 owners going forward, but it's highly unlikely that Microsoft would spend all that cash on acquiring highly regarded studios and then allow their franchises to appear on a rival's console. Although it's worth noting that Microsoft has taken this approach with the world-conquering *Minecraft* and it seems quite happy with all the money that's generating. While it has been made clear that current PS5 timed exclusive arrangements for *Deathloop* and *Ghostwire Tokyo* will still be honoured (the deal doesn't officially go through until the second half of 2021), Microsoft is still remaining tight-lipped about franchises like *Doom*, *The Elder Scrolls*, *Fallout* and other high-profile properties that have been third-party for the last two generations. Nintendo fans are also likely to be squirming at the recent news as a number of blockbuster games like *Skyrim*, *Doom* and the excellent remaster of *Doom 64* have appeared on the Switch, in a deal which appears to have been beneficial for both Nintendo and Zenimax in the past. It's also worth remembering that Microsoft has been quite happy in the past for its franchises to appear on Nintendo's handhelds, so it's possible that Switch owners might not be as disrupted as PS5 fans.

The news predictably caught the eyes of many online when it was

» [Xbox 360] *Viva Piñata* is perfect proof that Rare lost none of its sparkle from the Microsoft purchase.

» [PC] Imagine a new *Commander Keen* game. There's a lot of classic franchises waiting to be revived if Microsoft is willing.



» [PC] Having games like *Doom Eternal* and future Bethesda titles on day one is a huge draw for Games Pass, Microsoft's Netflix-style service.

revealed, including John Carmack who tweeted, "Great! I think Microsoft has been a good parent company for gaming IPs, and they don't have a grudge against me, so maybe I will be able to reengage with some of my old titles." The recent buyout of Zenimax now gives Microsoft a total of 23 creative studio teams, which already included the likes of Rare, Tim Schafer's Double Fine Productions, Obsidian Entertainment, inXile Entertainment, Mojang Studios, The Coalition, 343 Industries and many others. The purchase itself has been likened to Microsoft's earlier acquisition of Bungie by Bethesda's original founder, Christopher Weaver. In a recent interview with *Inverse* he said: "The acquisition of Bungie

» [PC] Bethesda's studios regularly lend a hand to one another, perhaps they could bring their expertise to *Halo*?

» [PC] Remember when Bill Gates once appeared in a *Doom* advert? Now it could be a reality.

» [PC] Microsoft now has an astonishing grip on western RPGs with its recent purchase, both in terms of big-name franchises and development talent.

» [PC] While some gamers are upset about Microsoft acquiring multiformat franchises, it's worth remembering that *Morrowind* was an Xbox console exclusive.

acted as an important trigger for the success of the early Xbox. Depending upon how soon Bethesda can prime the Microsoft pipeline, I suspect Microsoft is looking at their playbook and looking to repeat one of its 'best moves'."

Of course, as exciting as this news is for Xbox owners and PC gamers, it's important to remember that there are other downsides to companies getting acquired by bigger ones, and it's not always good news. Microsoft and Bungie parted ways in 2007 and many gamers say the *Halo* series hasn't been the same since, while popular sports franchises, *Links, Amped* and *Top Spin* largely disappeared after developer Indie Built (once Access Software) was sold to Take-Two Interactive. Lionhead Studios was closed ten years after Microsoft purchased the Guildford-based developer, while *Crimson Skies, Freelancer* and *Black & White 2* are just a few quality games that never received sequels under Microsoft's ownership. Rare is also worth mentioning as many argued the company's quality hasn't been on the same par as its N64 output since Microsoft bought it, but we'd simply point naysayers to the likes of *Kameo: Elements Of Power, Viva Piñata, Jetpac Refuelled, Banjo-Kazooie: Nuts & Bolts, Rare Replay,* and the highly entertaining *Sea Of Thieves* as proof that the studio has lost none of its creativity in its last 18 years.

But who wants to talk about potential doom and gloom? It's more exciting to think of the possibilities that could start happening to some of gaming's evergreen franchises now their respective developers are under such a big gaming umbrella. Imagine a brand-new *Halo* game utilising *Doom Eternal*'s combat engine, or the creative minds at Obsidian Entertainment taking the charm assault of *Grounded* and applying it to a new *Viva Piñata* game. There's even the potential of full-on remakes of *Full Throttle, Grim Fandango* and *Day Of The Tentacle*, rather than the great remasters that Double Fine delivered earlier this decade. Microsoft's intentions may not be fully clear at this moment in time, but outright owning such big names is a gargantuan power play that will affect the games industry and the games we enjoy for many years to come. ✱

READERS WEIGH IN

What crossovers would you like to see from the new buyout?

@JIMSTALLONE
I'd love to see *Fallout/Skyrim* in an engine that isn't riddled with bugs, any engine will do. I'd take Thomas The Tank Engine at this stage.

EVELIO SOSPEDRA
A *Doom/Wolfenstein* crossover would be pretty badass. Demons and Nazis together, that's something!

@HLF_AC
Return To Castle Clippystein.

JOHN MOUNSEY
Commander Keen Plays Solitaire. The opportunities are endless...

@ZX_SPECTRUM_30
Doom running on Excel. The beta went well...

@PICANDOCODIGO
Minecraft running on the original *Doom* engine.

ANDREW TOPPING
Doom Vs Excel – finally an excuse for a formulaic first-person shooter.

@ALEH79UK
A full-on *Halo* RPG. *Elder Scrolls*-style, with side-quests, dialogue choices, levelling up and stuff, basically a massive Bethesda RPG with the combat of *Halo*. Hang on, am I just describing *Destiny*? I don't really mean like that, I mean more focus on the RPG aspect!

@EATSLEEPSSNESREI
The killer crossover that's been 25 years in the making: Bill Gates as a playable character in *Doom*.

BRYNJÓLFUR ERLINGSSON
Doom (id) and *Brütal Legend* (Double Fine) sounds like every Nineties dude's dream videogame.

@LUKEYEANDLE
id Tech 7 for the next *Banjo* or *Conker* game. Also *Conker In Doom World*, taking on the Mighty Poo with a BFG. Get on it @RareLtd.

@VIPOR
GEARS OF DOOM: Rip & SAW!!

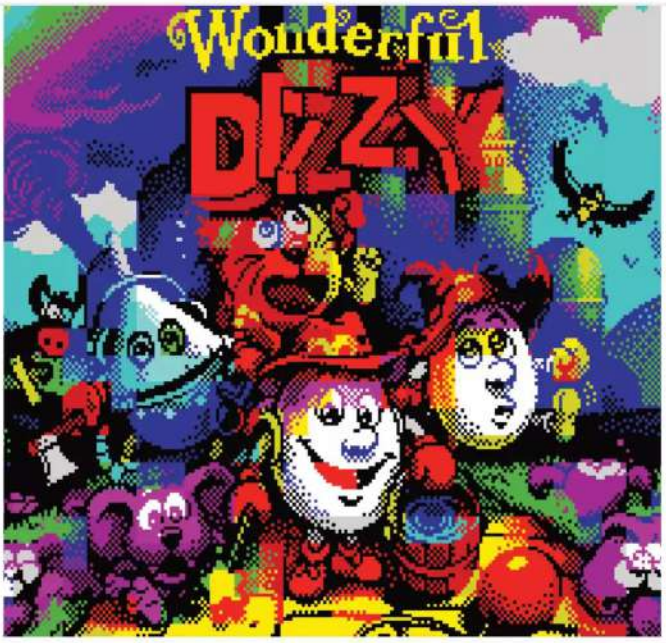
» Akira faces the future, though we reckon he's got as much idea of what it holds as we do – none.

VIRTUA REVIVAL

The *Virtua Fighter* series seems to be on the brink of a comeback, as Sega has teased a new project under the '*Virtua Fighter* x esports' title. The original 3D fighting series has been essentially dormant since the 2012 console release of *Virtua Fighter 5: Final Showdown*, the last revision of the 2006 arcade game, though the games and characters have been used for minigames and cameo appearances. Frustratingly for fans, there's little indication of whether this project is a brand-new game, a modern port of *Final Showdown*, a series collection or something else entirely. We'll keep you updated as more becomes clear.

GEAR UP FOR ALESTE

M2 has announced *Aleste Collection* for PS4 and Switch, which gathers Compile's shoot-'em-ups for 8-bit Sega consoles. The package includes the Master System games *Aleste*, known here as *Power Strike*, and *Power Strike II*, as well as the Game Gear's *GG Aleste* and *GG Aleste II* (confusingly localised as *Power Strike II*). A fifth title, a new Game Gear game called *GG Aleste 3*, has been created from scratch for the collection. Both versions launch on 24 December in Japan for ¥7,480 (roughly £55). A collector's edition is also available, bundled with a white Game Gear Micro featuring all five games, for ¥16,280 (£119).



» [Next] It's about time we saw Dizzy in a new adventure. Get it? [Nick, stop. Please. – Ed]

» [Next] This looks like a bit of a treacherous path, even without any moving enemies to contend with.

INTO THE WONDERFUL

WE SPEAK TO THE TEAM BEHIND DIZZY'S NEWEST ADVENTURE

You can't keep a good egg down, and the hero of the Yolkfolk has been very visible in recent times, with plenty of rediscovered NES projects keeping Dizzy in the spotlight. Now though, something very special is upon us – Philip and Andrew Oliver have returned to design their first classic *Dizzy* adventure in decades, for release exclusively on the ZX Spectrum Next. The game has been in production for some time but is now nearing completion.

While the design is being handled by the Olivers, other aspects are being handled by *Dizzy* fans like coder Evgeniy Barskiy (pictured right). "I learned about Dizzy's games in the Nineties," says Evgeniy. "I remember we tried to understand all the puzzles with the dictionary, because we did not know English." Having worked on a fan remake of *Crystal Kingdom Dizzy* that was released in 2017, bigger things beckoned for him. "The authors of the original *Dizzy* series, the Oliver twins, liked our work very much. They offered to create a new official part of the series, and we agreed. It is unbelievable that after so many years a sequel is being released!"

Although the game is new, the goal is to deliver a familiar experience. "It's a good old *Dizzy* with classic physics and mechanics," says Dmitri Ponomarjov, a graphic artist on *Wonderful Dizzy*. Where the team hopes to push the boundaries is with the visuals and engine. "These visuals are a result of collaboration of five modern ZX Spectrum artists, and all of them are real professionals in the ZX Spectrum demoscene and game dev," says Dmitri. "Also, the game engine allows us a lot of nice features to use, so the true rich graphics couldn't be achieved without it. These are variable-sized background sprites, recolouring, mirroring, a non-strict tile grid and usage of 128K memory so all of this fits well," he explains.

This has been a major undertaking for the team, which has been working since 2017 on a purely hobbyist basis. "The main idea of the engine was to squeeze all the possibilities out of the Spectrum," says Evgeniy. "To achieve smoothness of movement and speed, I had to work on some tricks. It's not always possible to plunge into the world of Spectrum, so the work lasted for several years." Still, he felt that the choice of platform enabled him to do great things. "The Next team did just a titanic job creating this computer. The new architecture is just a dream of the developers of the past."

"Philip and Andrew have produced the complete in-game plot and game map design on paper. It is a pleasure to work with them since they are professionals and they have made their part in a really quick and great manner," says Dmitri. "We are also constantly discussing the implementation details with them and they always provide some useful ideas and feedback on how things should be done."

"*Dizzy* is already part of our past, and part of ourselves," says Evgeniy, summarising the appeal of *Wonderful Dizzy*. Dmitri agrees, saying, "It's not aggressive, it's not hostile, it offers nice humour, relaxation, intrigue and exploration." We'll keep you updated when *Wonderful Dizzy* becomes available. ✱

» [Next] *Wonderful Dizzy* does look truly amazing, taking full advantage of the Spectrum's colour palette.

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Who is Iain Lee?
Iain Lee is a freelance broadcaster who loves gaming, particularly retro gaming. Join him as he hosts a phone-in show and plays games at www.twitch.tv/iainlee and also check out www.patreon.com/iainlee.

Anyone remember these?

I often think that there are some games that I am the only person in the world to remember. Possibly the only human being that ever played them. Let me throw a couple out there and see if any of them ring a bell for you.

First cab off the rank is *Strategic Command* on the Dragon 32. I don't really remember much about this but I'll try and give you all the info I have. Firstly, you had to play it with someone else. A rarity back then to have a game that was solely two-player, no one-player option. Secondly, it was kind of like *Risk*, although I haven't played *Risk* so I'm only going on what I learnt about *Risk* from watching *Lost*. You had a world map and bases on it and you had to take over the bases and then be the king. Or something. That's it. That's all I've got. It sounds dull and complicated but I remember being obsessed about it when I was nine years old. And that really sums me up as a kid – a geeky nine-year-old playing strategic games in his mum's bedroom on the black-and-white portable.

Doesn't ring any bells? Okay, how about *Nutter* on the BBC. I never actually owned this but I did consider buying it once. This was in the days where buying games, if you did it properly, could take hours. You'd have an eye on a couple of titles and you'd ask the shop assistant to load them up for you. Sometimes you'd have to have a parent with you because the people who worked in WHSmith would be suspicious of a kid asking to try out a game. They'd often be quite rude in telling you to get lost. Boots was a little friendlier and on a quiet day you could try up to three games before they started getting tired of you.

Boots was where I tried *Nutter*. The premise was you were Adolf Hitler moving along the bottom of the screen. Bombs would fall down from the sky and you had to headbutt them to stop them destroying your Nazi base. For some reason, the guy who loaded it up for me was raving about it, but I thought it was the dullest thing I'd ever seen. I didn't want him to feel bad though, so I feigned interest in it and played for a lot longer than I wanted to. I did a similar thing at a games show in Japan once when one of the developers of the *Avatar* game forced me to play it. Oh… maybe that was it! Maybe the shop assistant had written *Nutter* and was desperate to sell a copy.

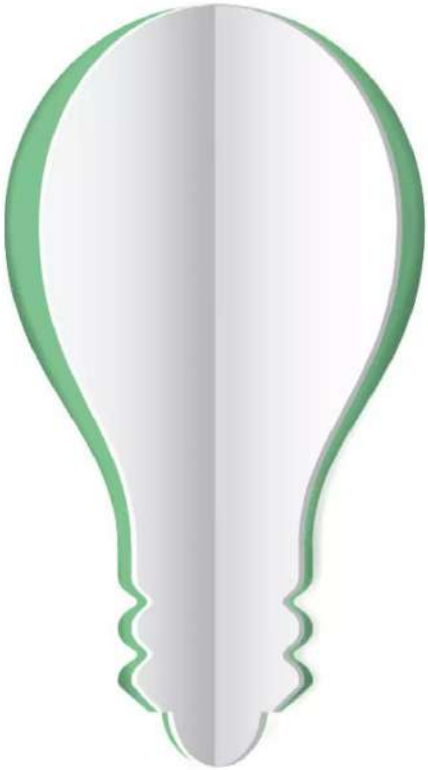
Death Mines Of Sirus, another Dragon game, scared the hell out of me because halfway through loading it, there was a spoken word monologue on the tape that was delivered in a terrifyingly deep voice. It made me and my sister cry when we heard it.

I think I am the only person that remembers these games. Did you play them? If so, can we start a support group and… do you still have *Strategic Command*? I'd love a game!

> "I didn't want him to feel bad though so I feigned interest in it and played for a lot longer than I wanted to"

Do you agree with Iain's thoughts? Contact us at:

RetroGamerUK @RetroGamer_Mag retrogamer@futurenet.com



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CEPI represents 92% of European pulp and paper production

Who is Paul Rose?
Paul is probably better known as Mr Biffo – the creator of legendary teletext games magazine *Digitiser*. These days, he mostly writes his videogame ramblings over at Digitiser2000.com. If you want more Biffo in your eyes, you can catch him as the host of *Digitizer The Show* at www.bit.ly/biffo2000.

The party's over

I got lucky, being a games journalist during arguably the most exciting time ever in the games industry. Don't get me wrong; I understand that for the current generation of gamers, the imminent launch of a whole new generation of PlayStation and Xbox will be exciting enough, but it's sort of quite routine now. Gaming has become a true industry, corporate and safe.

Back in the Nineties, everything felt new. I got to be there as gaming came of age, moved from 2D into 3D, and was fortunate enough to attend the launches of everything from the CD32, to the Dreamcast, to the N-Gage (the last gaming junket I ever went to: a trip on the London Eye, followed by a party attended by *the actual Lara Croft)*. By the time I'd finished on *Digitiser*, I was pretty much done with attending launch parties. They all seemed to have started blending into one.

I don't know how true it is, but I heard that these lavish soirees were no longer held on the sort of scale I was fortunate to be treated to. Certainly, they wouldn't have been this year, but the Nineties was an era of gaming excess.

The first one I went to was the 'Sonic 2sday' party at Hamleys toy shop in London. That mostly sticks in my memory because it was the first time I'd mingled with actual celebs. In this instance, Tucker Jenkins and Right Said Fred. All the greats.

US Gold held a party after a European Computer Trade Show at which a young Steve Coogan performed. He was just at the start of his Alan Partridge fame, and his rather rote impressions – yes, I think he did do Frank Spencer – was met with booing and catcalls.

Indeed, US Gold was never one for holding back. Its *Winter Olympics* games were launched with an overseas jolly to Lillehammer in Norway, where I got to ride the actual Olympic bobsleigh run. Which was terrifying.

Another press launch – technically a relaunch – that fell flat was for the Atari Jaguar. Held at the London Planetarium, with Tony 'Baldrick' Robinson hosting for some reason, the terrible game footage was met with mocking laughter. The subsequent, and final, time I attended an event by Atari, it was held in the company's European boardroom, and the festivities went as far as some stale Twiglets.

Virgin Interactive pulled out all the stops for the release of *The 7th Guest*. It bussed a ton of us to some stately home, where we enjoyed a banquet, before being required to solve a murder mystery. Memorably, we had free rein to explore the venue, and happened upon one room full of dolls that were draped with raw offal. Health and safety must have taken the day off for that one.

The weird thing is, I'm not sure a single one of these events ever convinced me to write more favourably about a product. Of course, we went to them, and I was grateful for the invite, but we would've been just as happy with a review copy and a press release. Which, so I've heard, is the way it's done now. Pity those journos covering the launch of the PS5. ✱

> "It was the first time I'd mingled with celebs. In this instance, Tucker Jenkins and Right Said Fred"

Do you agree with Paul's thoughts? Contact us at:
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» Aside from safeguarding against COVID-19, Glen and his staff also have to manage maintenance on old machines.

» Retro Replay isn't just filled with arcade machines. It also has interesting consoles, like this Vectrex.

» Retro Replay features a range of consoles, from the popular NES to the less well-received Amiga CD32.

» If it's safe to visit Retro Replay, the opening times are: Monday to Friday 6pm 'til 10pm and Saturday/Sunday 11am 'til 10pm.

» Glen says the wristband system Retro Replay uses "was proving most popular with our customers".

» Retro Replay uses a wristband system, which is fixed for the entire day. Adults are £10.00, under 16s £7.50, under fives free and a family pass is £32.00.

» Glen tells us, "Being without income for five months was a challenge, especially as we had only been open six months prior to lockdown."

Can I get a replay?

Retro Replay's Glen McDonald tells us about a challenging first year

Every first year is tough for a new business, and Glen McDonald of Retro Replay is having all the usual struggles, with the further complication of COVID-19 adding to his problems. Here he tells us how his Norwich-based arcade is faring.

How has the first year of Retro Replay been?

We opened our doors on 28 September 2019 and found instant success. Being so close to Great Yarmouth, many of our customers remember the golden age of the arcade and want to relive their youth or show the next generation the origins of gaming. Our commitment for adding more value for money has always been at the forefront of what we wanted to do.

How many arcade games are available to play?

Right now, we have over 80 arcade machines all set on free-to-play, which cover a wide range of genres and eras. We also have over 20 retro console setups and two projectors, including a giant NES controller. We wanted to include consoles which our customers would have most likely not have played before, such as, the Vectrex and Commodore Amiga CD-32.

How has COVID-19 affected you?

COVID-19 has affected Retro Replay greatly. We closed our doors in March and decided to reopen on 22 August. We could have reopened on 4 July, but we wanted to see what steps other business were taking to make their venues COVID-secure, so we could see what worked well and what didn't before implementing them at Retro Replay. Even though we've reopened, we still have a reduction of trade mainly due to a lower venue capacity and customer confidence with the pandemic still not at bay.

How have you been adapting to the COVID-19 restrictions?

Like all venues around the country, we've been doing our best to make Retro Replay COVID-secure. We've been increasing venue cleaning of all control panels/buttons/joysticks etc, reducing venue capacity, offering free disposable gloves and hand sanitiser. COVID-19 has, however, given us time to catch up on some long-term projects, including a restoration of a *Sega Rally* twin. It has also allowed us to make venue improvements to add to the overall customer experience.

Outside of COVID-19, what other issues have you faced?

The biggest issue is maintenance. Our machines run on original boards and CRTs. As a result, keeping everything in good working order is a never-ending challenge. The other big issue is sourcing cabinets. The issue which we have for many of the iconic cabinets is it isn't just us wanting to buy them, there's dozens of private collectors, too.

Some retro businesses have created fundraisers. Have you considered anything similar?

Thankfully, our landlord was very understanding during lockdown and since reopening we're still managing to cover overheads. Trade will inevitably pick up to where we left off, we just need to wait it out (however long that'll be). Sadly, we've seen other retro arcades around the UK close their doors post-lockdown, which is a huge loss, but we at Retro Replay will do whatever is necessary to get through this crisis.

How can readers help Retro Replay?

With the pandemic still on the go, we would not recommend unnecessary travel to our venue, but you can support us in other ways. We sell wristband entry vouchers on our website (retro-replay.games) and we will soon be releasing our Retro Replay branded T-shirt merchandise. Also follow us on our social channels to keep up to date with the new games we've got. ★

Get more info at **retro-replay.games** or Twitter at **@RR_Arcade**.

BACK TO THE NOUGHTIES

DECEMBER 2003 – Could we be seeing the best Christmas of the generation? A packed release schedule would suggest so, with absolute belters being flung around left, right and centre. Nick Thorpe reinforces his time machine and steels himself for a barrage of superb software

[PS2] EA's racer didn't just dominate Christmas 2003, it eventually sold a whopping 15 million copies worldwide.

NEWS DECEMBER 2003

On 3 December, the trial of Armin Meiwes began in Kassel, Germany. Bernd Jurgen Armando Brandes had responded to Meiwes' advert for a voluntary victim on a cannibalism forum, and was killed and eaten when the pair met in March 2001, with Meiwes consuming around 20kg of Brandes' flesh in the months that followed. Although Meiwes' involvement was indisputable – the killing had been filmed and body parts were found in his home – the trial was complicated by Germany's lack of laws on cannibalism and the victim's consent. In January 2004 Meiwes was convicted of manslaughter and sentenced to eight and a half years in prison. Meiwes was retried and convicted of murder in 2006, resulting in a life sentence.

The US military conducted Operation Red Dawn in Ad-Dawr, Iraq, on 13 December. Having previously carried out a dozen of unsuccessful raids with the intent of capturing deposed Iraqi president Saddam Hussein, this effort involved 600 soldiers and proved successful, with the former dictator found crouched in a small hole just as the operation was about to wrap up. International reaction was broadly positive, though there was some condemnation of how he was treated during his capture. In the days that followed, George W Bush resisted calls to turn Hussein over to an international court, instead promising that he would face a "fair trial" in Iraq – alleging that the decision to seek a death penalty was up to Iraqis.

THE LATEST NEWS FROM DECEMBER 2003

There was no question of who was stuffing the stockings this Christmas – Santa Claus was picking up his software from EA. The third-party giant had a slew of hits across genres, occupying five of the top six chart slots over Christmas. *Need For Speed: Underground* emerged as a surprising chart-topper, though its worthiness was called into question. *Play* scored it 82% despite being "mystified that a company with the development might of Electronic Arts can turn in such a deeply average game", with perhaps more appropriate scores coming from *XBM* (7/10), *Cube* (6.5/10) and *games™* (5/10). Konami's superb *Pro Evolution Soccer 3* (97% *Play*, 9/10 *games™*) was stuck on the PS2 alone, leaving the multiplatform *FIFA 2004* (89% *Play*, 8/10 *XBM*, 6/10 *games™*) to clean up. In *Medal Of Honor: Rising Sun* (5/10 *Edge*, 4/10 *games™*), a rigid structure left *games™* feeling like it was "merely ticking off setpieces until reaching the war's conclusion". The company's dominance was rounded out with *The Lord Of The Rings: Return Of The King* (5.8/10 *Cube*, 5/10 *games™*, 8/10 *Edge*) and *The Sims: Bustin' Out* (8/10 *XBM*, 6/10 *games™*).

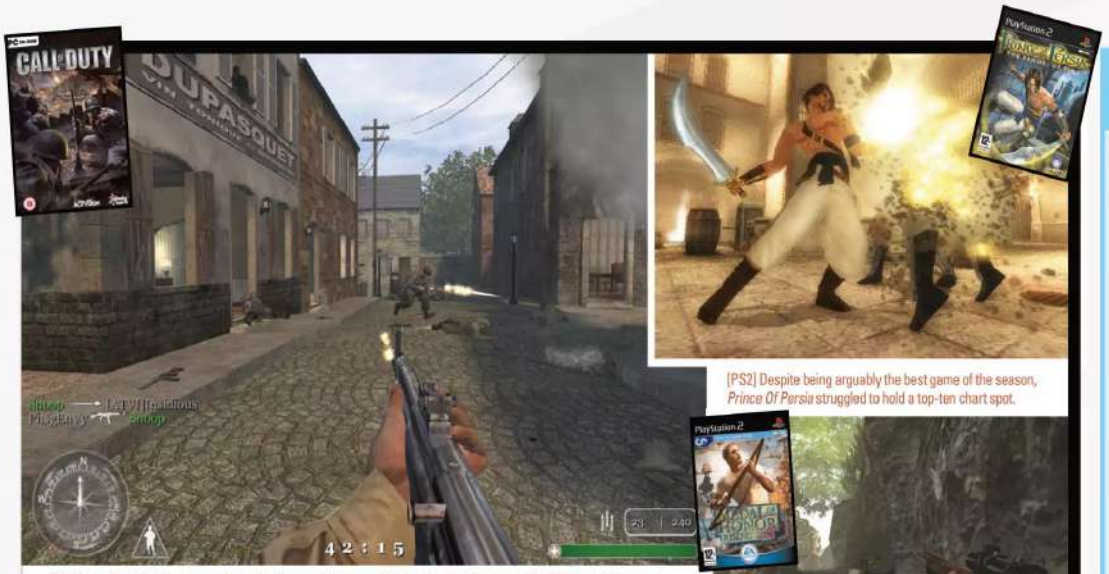
In fact, cross-platform console games really dominated the season.

[Xbox] Bizarre Creations took the season's most realistic, restrained approach to racing. It was great, if a bit clinical.

[GameCube] Nintendo was hoping for something of a turbo mushroom effect on its sluggish console sales.

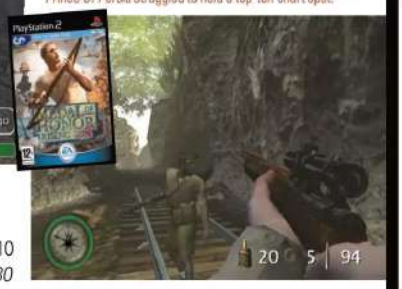
In the hotly contested open world extreme sports arena, Activision's *Tony Hawk's Underground* (9/10 *Cube*, 8/10 *games™*, 5/10 *Edge*) got the better of EA's *SSX3* (94% *Play*, 7/10 *games™*, 8/10 *Edge*) by outlasting it in the charts. Less commercially successful, but no less worthy of attention were *Beyond Good & Evil* (92% *Play*, 8/10 *games™*, 7/10 *Edge*) and *Broken Sword III: The Sleeping Dragon* (8/10 *XBM*, 5/10 *games™*, 9/10 *Edge*). Less brilliant, but more popular with the general public, was Activision's open world cop caper *True Crime: Streets Of LA* (6/10 *XBM*, 4/10 *games™*, 7/10 *Edge*).

Of course, exclusives did have a place in the single-format charts. Sony had timed exclusivity on Ubisoft's franchise revival, *Prince Of Persia: The Sands Of Time*, which *games™* felt would be "a real kick in the teeth for Microsoft and Nintendo", as the action adventure was "easily one of the best games of its ilk" and worth an 8/10 score. *Edge* gave it 9/10 and *Play* scored it 92%. *Ratchet & Clank 2: Locked & Loaded* was "polished, playable and packed with nice touches", according to *Play*'s 82%



[PC] Given the global juggernaut the series is today, it's amazing to look back at how muted *Call Of Duty*'s debut was.

[PS2] Despite being arguably the best game of the season, *Prince Of Persia* struggled to hold a top-ten chart spot.



[PS2] *MOH: Rising Sun* was a triumph of presentation and marketing over game design, infuriating EA's detractors.

review, but lacked originality. *Edge* and *games™* agreed, offering 7/10 and 6/10 respectively. Also turning heads on the PS2 were the unexpectedly good *Gregory Horror Show* (78% *Play*, 7/10 *games™*, 8/10 *Edge*) and overhyped graphical showcase *Ghosthunter* (69% *Play*, 4/10 *games™*).

On the GameCube, *Mario Kart: Double Dash!!* was the star of the season, earning 9.4/10 from *Cube* which called it, "A faithful update of the previous games and a unique, brilliantly playable, genuinely funny and unmatched racing experience of its own." It scored 8/10 in *games™*, with notable dissent from *Edge*, which scored it 5/10 due to the reviewer's belief that its slow and heavily luck-based gameplay meant that it "isn't a racing game anymore". *Star Wars Rogue Squadron III: Rebel Strike* (9/10 *Cube*, 6/10 *games™*, 5/10 *Edge*) failed to live up to its predecessor, with *games™* citing "the wildly varying quality of the many sections and vehicles" as the problem. Other notable GameCube exclusives were Sonic Team's *Billy Hatcher And The Giant Egg* (7/10 *Cube*, 7/10 *Edge*, 6/10 *games™*), snowboarding sequel *1080 Avalanche* (9/10 *Cube*, 7/10 *games™*) and *Mario Party 5* (7/10 *Cube*).

Xbox gamers also had a big racing game in the form of *Project Gotham Racing 2*. It received the full 10/10 treatment from *XBM*, which declared "The racing is sublime, the car models and lighting exquisite, the structure perfect." It also earned 9/10 from *games™* and 7/10 from *Edge*. *XBM* was also convinced by Rare's Xbox debut *Grabbed By The Ghoulies*, scoring it 9/10. *Edge*, however, felt that the beat-'em-up was "short, pretty but unsatisfying" and scored it 6/10 – a score also awarded by *games™*. If you fancied something else on Bill's box, you could also try tactical FPS *Tom Clancy's Rainbow Six 3* (10/10 *XBM*, 8/10 *games™*, 6/10 *Edge*), air combat game *Crimson Skies: High Road To Revenge* (8/10 *XBM*, 6/10 *games™*, 7/10 *Edge*) or snowboarding game *Amped 2* (7/10 *XBM*, 5/10 *games™*, 8/10 *Edge*).

If you sought a World War II game, you were well-served on the PC.

You'd have had the choice of *Call Of Duty* (7/10 *Edge*, 7/10 *games™*), a brand-new game from ex-*Medal Of Honor* developers, the tactical shooter sequel *Hidden & Dangerous 2* (8/10 *Edge*, 8/10 *games™*), or the overhead strategy game *Commandos 3: Destination Berlin* (7/10 *games™*, 6/10 *Edge*). If you preferred warfare of a different kind, the Xbox darling *Halo: Combat Evolved* finally made its way over to PC and scored 9/10 in *Edge*, which said that it "doesn't carry the same weight" as the Xbox release two years prior, but was still "one of the finer gaming experiences available".

Join us next time for the first part of 2004 – a year which will deliver two major new platforms, a huge media controversy and a big publisher bankruptcy. Oh, and some magazine about old games launches, too. We can't see *that* lasting. ✱

CHARTS

DECEMBER 2003

PLAYSTATION 2

1 – Need For Speed: Underground (EA)
2 – Medal Of Honor: Rising Sun (EA)
3 – FIFA 2004 (EA)
4 – The Simpsons: Hit & Run (Vivendi)
5 – The Sims: Bustin' Out (EA)

XBOX

1 – Project Gotham Racing 2 (Microsoft)
2 – Tom Clancy's Rainbow Six 3 (Ubisoft)
3 – Need For Speed: Underground (EA)
4 – Medal Of Honor: Rising Sun (EA)
5 – The Simpsons: Hit & Run (Vivendi)

GAMECUBE

1 – Mario Kart: Double Dash!! (Nintendo)
2 – Star Wars: Rebel Strike (LucasArts)
3 – The Simpsons: Hit & Run (Vivendi)
4 – The Sims: Bustin' Out (EA)
5 – Medal Of Honor: Rising Sun (EA)

MUSIC

1 – Mad World (Michael Andrews Ft Gary Jules)
2 – Christmas Time [Don't Let The Bells End] (The Darkness)
3 – Changes (Ozzy & Kelly Osbourne)
4 – Proper Crimbo (Bo Selecta)
5 – Happy Xmas [War Is Over] (Idols)

THIS MONTH IN...

games™

"We must warn you that Square Enix's follow-up to *Final Fantasy VII* will not be a game, but a movie," a small news piece reads. *Final Fantasy VII: Advent Children* is apparently to be a straight-to-DVD movie set soon after the game, speculated to be "a way of simply reviving interest in the original game before a sequel is launched".

Edge

"A little silence, please, for we are in the presence of great beauty." Sony had unveiled the PSP concept design, and *Edge* was rather taken with the "gleaming slab of geometric obsidian", despite noting that, "Sony doesn't have anything more concrete in place for the device than a cocktail of existing names along the lines of *Gran Turismo*."

XBM

"The next time some retro-head starts blabbing on about how good *Sabre Wulf* was [...], kick them really hard in the shin then run away giggling and shouting out that *Halo* is better than *Doom*, *Jet Set Radio* is better than *Skate Or Die*, *Ico* is better than *Prince Of Persia*, *Ikaruga* is better than *Space Invaders*," says *XBM*, trying to be controversial.

RealSports Boxing

WAY TOO BUSY POWER TRIPPIN'

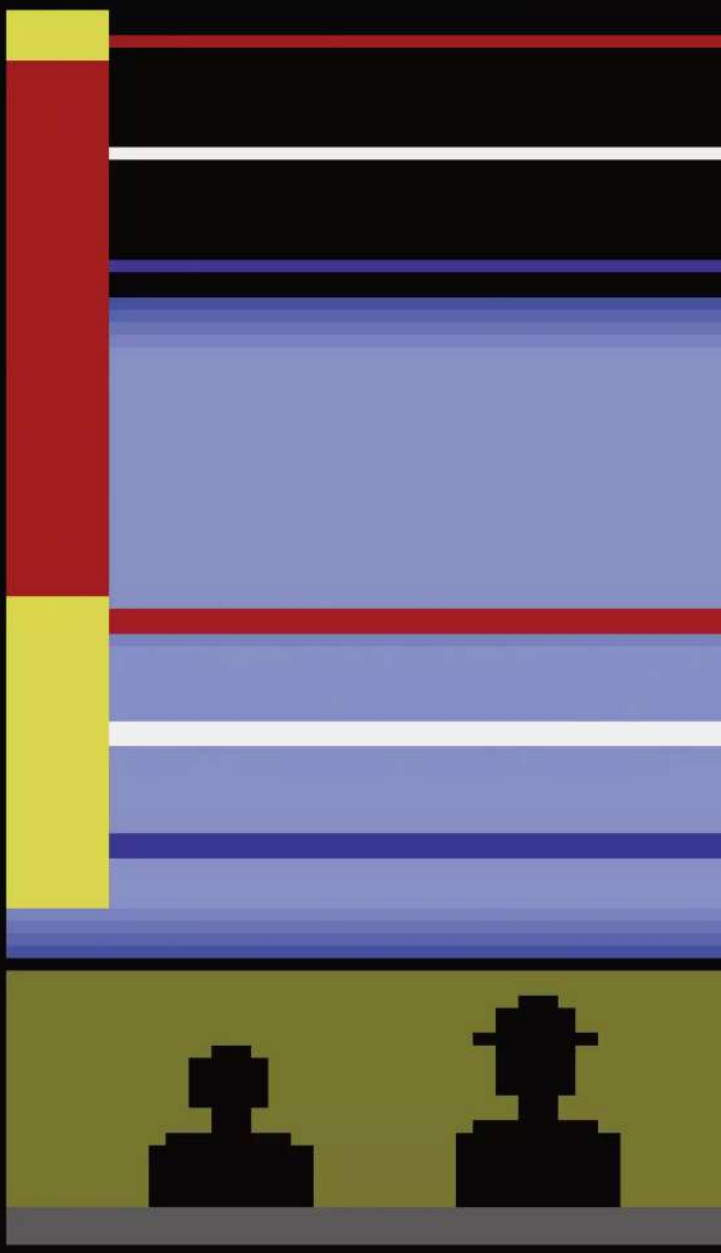
» Atari 2600 » 1987 » Atari Corporation

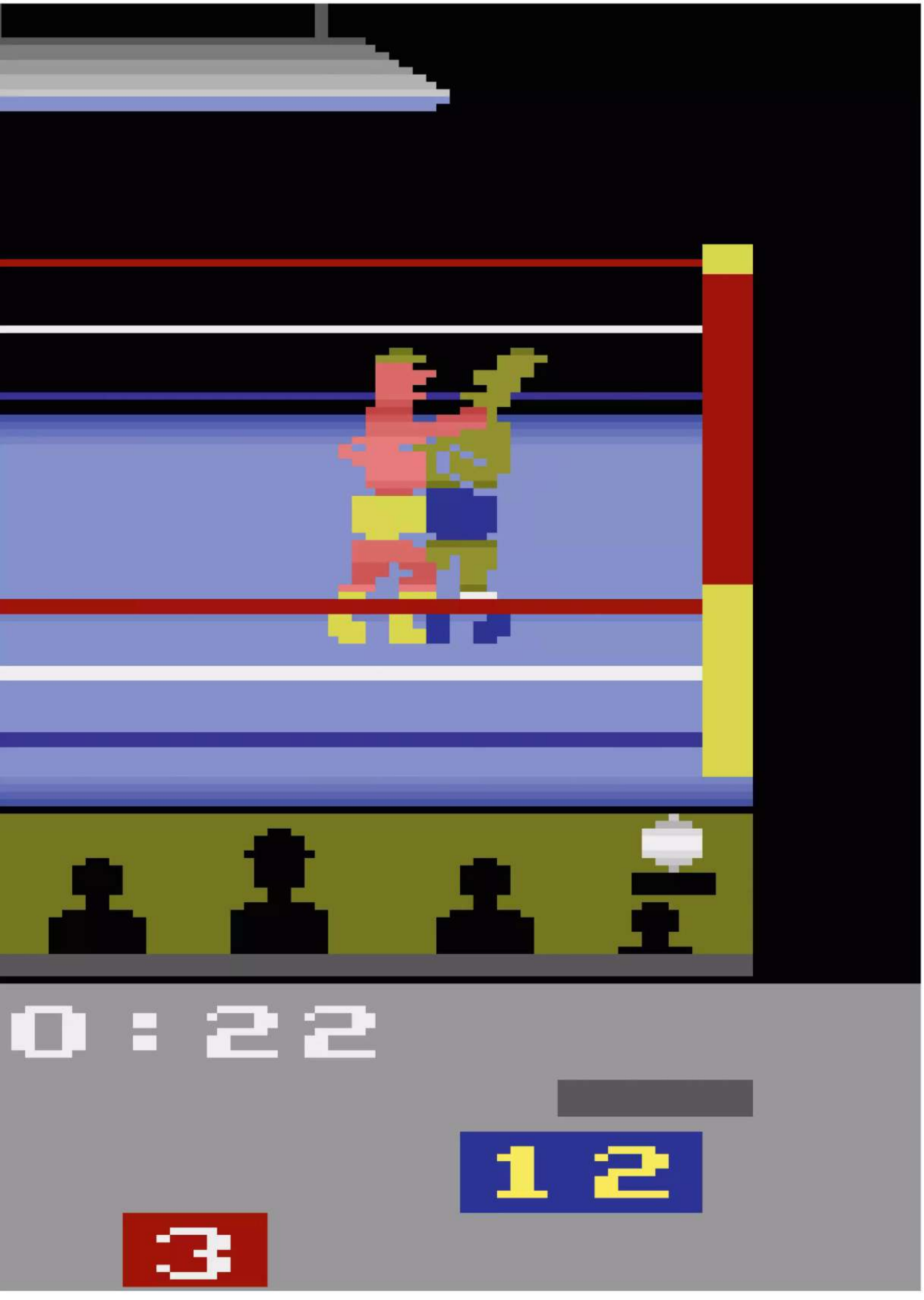
I'm not sure if this is odd, but given the relatively similar theme, I have a far harder time getting into realistic, sports-based fighting games than I do the likes of *Street Fighter* and *Tekken*.

Maybe it's that learning how to play doesn't have a payoff involving spectacular fireball attacks, or maybe it's just that realistic combat games tend to be harder for developers to get right. Either way, the two types of games serve very different purposes for me. I love a good, competitive brawl with 'traditional' fighting games. With realistic ones, I'm happy to take an easy ride.

RealSports Boxing was the first fighting game I ever played, and on the default settings it's very easy. There's no need to dodge about or keep your guard up, you can just chase your opponent, peppering them with jabs and body blows until you're ready to throw those payoff punches. If they want to stand and swing wild, I'll stand right with them and go crazy – and inevitably, I'll come out on top. The blocky graphics still convey a satisfying sense of impact – it's gratifying to watch your opponent's head snap backwards with each haymaker, and even better to see them sprawled out on the canvas as the referee counts them out. Yeah, there are other boxers to fight, with different weaknesses, there's a two-player mode too, but I just don't care. All I want is the power trip, the ability to unleash my pent-up aggression with *just* enough of a show of resistance that I get the feeling of conquest.

Over the years, I've donned Rocky's gloves on the Master System, and driven a virtual Brock Lesnar to pound people into paste in UFC games. Despite its simplicity, *RealSports Boxing* still gives me that same feeling of release. At this point, you may be thinking that this sounds like unhealthy behaviour. I'm not doing it to actual people, but hey, I'm no psychiatrist. Maybe you're right? All I know is, when you put a combat sports game in front of me, I don't care about sportsmanship and fair fights – I just want to *break someone*.

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The Story Of Prince of Persia™ The Sands of Time

It was the 2003 reboot of the franchise which began in 1989 and it had gamers leaping for joy – as well as running along walls and rewinding time. Fast forward to today, and it's about to get another outing thanks to a full official remake

WORDS BY DAVID CROOKES

PATRICE DÉSILETS

Canadian game designer Patrice Désilets is open and honest. "I wasn't a fan," he says of the original *Prince Of Persia* – the cinematic platformer designed by Jordan Mechner in 1989. "I played it when I was 26 or 27 years old and I was like, 'Holy cow, people say that game is great?'"

In Patrice's mind, time had lessened the game's impact. He'd played it some ten years after release, when the appreciation of its groundbreaking rotoscoping, engaging sword fights and mix of puzzles had perhaps waned with the dawn of 3D console classics such as *Tomb Raider*.

"Nostalgia," he offers, by way of explanation. "It's not because it's a good game now, right? It's like, 'Oh yeah, the character moves really well but, damn, it's frustrating.'"

Such an admission is perhaps surprising. After all, *Prince Of Persia* not only spawned a franchise published by Brøderbund, it also happened to be bought by Ubisoft and rebooted – at the hands of Patrice himself. In fact, the equally innovative action adventure *Prince Of Persia: The Sands Of Time*, released in 2003 for all of the major platforms at the time, also ended up being his first hit. If Patrice – creative director on *Sands Of Time* – doesn't appreciate the original game itself, then he is certainly thankful of its legacy.

"I took the fundamentals of *Prince Of Persia*," he recalls, later taking it further by helming another huge hit, *Assassin's Creed*. But how did the game come about and where did the innovative ideas it incorporated spring from? For those answers it's wise to rewind time to the beginning of 2001, when Ubisoft called Jordan Mechner with its intriguing yet troublesome proposal: to resurrect the Prince in a new 3D game.

Jordan had been here before. The Prince's last outing in 1999 was an ill-fated 3D version for Windows (and later the Dreamcast) which Jordan disliked (and continues to swerve). Ubisoft, however, had big plans for the game's continuation and it needed to get the original creator on board. It owned the rights to the *Prince Of Persia* name, it transpired, but Jordan Mechner held the IP.

Ordinarily, such things would be quickly resolved. Yet if the man who created *Karateka* while at Yale University and whose previous videogame project was the $5 million flop *The Last Express* in 1997 was to give the proposed reboot the nod, then he had to be convinced that any new team and direction would do his baby justice. And there was no indication that he was in any way desperate to get back into videogames.

JORDAN MECHNER

After creating *Prince Of Persia* and its first sequel, *Prince Of Persia 2: The Shadow And The Flame*, released in 1993, Jordan, who had attended film school at New York University, shot the documentary *Waiting For Dark*. The call from Ubisoft came as he was working on another doc, *Chavez Ravine*, and he certainly was happy to be away from games at that time.

As such, the onus was on Ubisoft to convince him otherwise so Jordan was invited to the company's head office in Paris to meet its president and CEO, Yves Guillemot. Following a lavish PowerPoint presentation, Jordan asked for more details about the people being assigned to the game's development, so Ubisoft asked producer Yannis Mallat to assemble a three-man team in Montreal, Canada, and they worked on a concept.

Yannis arranged to meet Jordan at E3 which took place at the Los Angeles Convention Center between 17 and 19 May 2001. After a conversation lasting two-and-a-half hours, it was decided that Jordan should fly to Montreal a few weeks later to see the design for himself. This gave the team time to refine the concept, only Yannis wasn't convinced that the design document – rolling in at a

» [PC] The Vizier is a tricky old sorcerer who manages to protect himself while producing clones to do battle with the Prince.

A Prince Amongst Videogame Heroes

We like the way he moves...

Leaping over gaps

Missing bits of the floor? No worries for the Prince. He can athletically hurl his body across manageable gaps and soon get on his way.

Sky-high attacks

When battling enemies, his sword drawn, the Prince can take a foe by surprise by leaping over the fool and striking them from behind.

Run along walls

Gap a bit too wide? Our hero can take to the walls, running along them until he reaches the other side, or prepares for another move.

Climbing ladders

Although there's a lot of climbing up walls and making use of the environment to get around, a few well-placed ladders come in handy.

Every column inch

The Prince can make use of the many columns in the game, clambering up them and leaping from one to another as he makes his way from A to B.

ON THE LEDGE
With his fingers gripping tightly, the nimble Prince can make his way across the ledges found around the palace's walls.

WALL-TO-WALL ACTION
To make his way up tight spots, the Prince can leap left and right from one wall to another in order to speedily get to the top.

JUST HANGING AROUND
If there's a pole, then chances are the Prince is going to be able to grab hold and swing himself up and over as leverage for a cool leap.

weighty 300 pages – contained anything particularly innovative. He felt the concept simply retrod familiar platforming ground, so the team was axed and new blood was brought on board in the hope of an early rescue.

"Jordan had given Ubisoft a ruleset for *Prince Of Persia* – the pillars of that game: the quality of the animation, puzzles and the difficult fights," Patrice Désilets recalls. The revised team worked on that basis. "And then Jordan came to Montreal and loved what was being worked on." But what was it that caught his imagination? Quite simply, the idea of the Prince being some kind of Persian ninja.

"The animation took the action vertical – the character was running up walls and bouncing from one wall to another using Cirque Du Soleil acrobatics," Jordan recalls, having watched an impressive yet simple silhouetted set of animations by artist Alex Drouin that showed how agile the Prince could be. "It made the action feel more extreme and it really looked like it would unlock the gameplay." Jordan was soon reaching for a pen

"The challenge was to replicate the fluidity of the 2D game by chaining moves together very fast in a 3D world – something Brøderbund hadn't achieved," Jordan recalls. Working on this basis, development began properly in September 2001 and the challenge was to take those prototypes and turn them into a groundbreaking game – never the easiest of tasks.

That said, Patrice didn't feel burdened by the *Prince Of Persia* games that had come before. "There was no fan arc with *Prince Of Persia* [before *Sands Of Time*]," he says. "It wasn't like, 'Oh what if this is what is really important?' or, 'I remembered my emotion when I played it.' No, no, no. It was just like, 'Okay, it's a guy stuck in a palace.' We were being given a licence, an IP to start with and we could do what we wanted."

Certainly, nobody was laying any real expectation on the shoulders of this young team. None had shipped a triple-A game before but they were enthusiastic, talented and hardworking. Prior to this title, Patrice had worked on *Donald Duck: Goin' Quackers* and he was assigned to *Prince Of Persia: The Sands Of Time* because he didn't have another project. "*Sands Of Time* felt the same as *Donald Duck*," he says. "We were using a character that had been established."

Patrice had little time for formal planning. Unlike the initial group

[PC] The interaction between the Prince and Farah is humorous and helpful, creating a medium that makes exposition dumping feel more natural.

assigned to work on the game, talk of creating big documents was dismissed. "We did some design on paper but it wasn't fleshed out and we didn't go for a PowerPoint," Patrice recalls. "It was about action and about what was going on in a room. At first we were a small bunch of people from different crafts building a game together – somebody doing 3D while we were designing and going through the core narrative of the game. We knew which rooms we would build inside the palace and had an idea of the overall flow. Most of the development was about the pattern of getting things on-screen as quickly as possible."

Many ideas were thrown around. Most of them were chucked out. "One of the things that I wanted to do was put lots of people inside the palace but we couldn't do that because of the PlayStation 2's capabilities for rendering and whatnot," Patrice says.

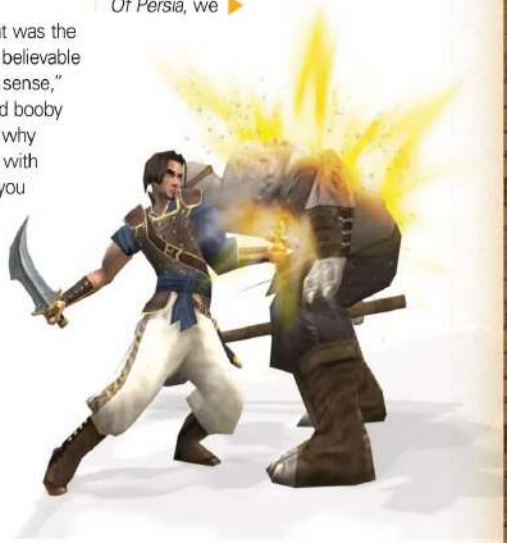
Instead, the game was kept simple and revolved around some important elements: fluid movement, fighting, puzzles that relied on acrobatics, and a fair few brainteasers typical of adventure games. Another crucial addition would come later and turn everything on its head...

"What was really important was the idea that the game had to be believable – the palace needed to make sense," Patrice continues. "So we had booby traps but then we'd question why anyone would live in a palace with booby traps. And okay, cool, you can run on walls. But who lives in a palace where you had to run on walls to get to your room?"

The developers also wanted the main character to be grounded. "We worked hard on the quality of animation and the believability of the Prince even though he's running up walls," Patrice says. "It was a bit like parkour before the parkour trend, and one thing I remember from Jordan one morning was the suggestion it would be really interesting if we only stay in the palace and have a unity of action, characters and place."

Patrice and Jordan got on well. "I'm not starstruck often... well, ever, and so for me it was like, 'Yeah, it's Jordan and he became my friend pretty quick," Patrice says. Jordan was involved as a consultant and he worked from his home in Los Angeles, visiting Montreal every so often. As such, the main decisions were being made in Canada, and one of them was the use of the Jade engine which had been designed by Michel Ancel for *Beyond Good & Evil* – and which needed to cope with a key mechanism that would raise the game to another level: the ability to rewind time. This was something which helped avoid death while encouraging experimentation and it felt groundbreaking.

"This came after we had created something that we could play," Patrice explains. "We found we were dying a lot because the game wasn't easy and, just as in the first *Prince Of Persia*, we



THE PORTABLE PRINCE

Got time for something slightly different?

■ Making use of a 2D perspective, the Game Boy Advance version of *Prince Of Persia: The Sands Of Time* feels like an entirely different game to the other console iterations, despite overlapping similarities. It welds the mechanics of the original game with key elements of the 2003 reboot, introducing players to new skills in the guise of scrolls placed around the palace.

Released at a similar time to the the PS2 version, it includes the exact same story and the gameplay is no less compelling. Players need to leap around platforms, climb columns, avoid large falls and cunning traps, and swashbuckle against an assortment of enemies, figuring out how to get from A to B with switches and the same ability to extract sand from those the Prince fells.

It doesn't take long to get a hold of the rewind feature. Tap the left shoulder button at the right time, and the Prince will go back to the point before a mistake was made. But that isn't its only use. It can also help to solve puzzles, which gives it an added dimension not explored elsewhere. Farah also helps the Prince to progress. After meeting her, the player is able to switch between the two heroes and make use of her bow and arrow. Time has been kind to this game.

found this was boring – dying isn't particularly fun. Since *Sands Of Time* was about getting from point A to point B in 3D, we were starting from the beginning about ten times and finding we didn't want to continue." The rewind feature solved the problem, but it also changed the entire direction of the game.

By allowing the player to rewind from a mistake, gamers could effectively make their own checkpoints on the fly. It was by no means simple to implement, but lead programmer Claude Langlais believed he could get the ambitious rewind feature to work with the Jade engine.

"It was the main challenge," highlights Patrice. "You have to understand that the PlayStation 2 had 32 megabytes of RAM and that five megabytes was used by the operating system. We needed five megabytes to record the stuff that could be rewound and that didn't leave a lot left for everything else."

Even so, Claude achieved his aim and Jordan was impressed. "You'd press a button on the controller and turn back time while holding it down and that was a huge innovation and very exciting," he says.

Ubisoft executives also loved what they saw (animator Alex Drouin had worked with AI coder Richard Dumas on the creation of a responsive character) but, rather then speed up the preproduction process, the team secured another three-months of preparation work. The priority now was to 'pretty up' the rough graphics and give the game some style.

Raphael Lacoste was hired as the game's art director, leaving his job as an environment artist for Kalisto Entertainment in Bordeaux, France, and joining the team in April 2002. His late appointment was far from ideal – up to that point, there had been next to no art at all, just monochrome textures and basic blocks, and so it was a case of hitting the ground running in the hope of quickly finding a suitable style.

Thankfully, Raphael brought a beautifully dark dimension to the graphics, creating a mature Prince in a consistently beautiful world with billowing silk, lightmaps and a variety of environments, despite its single setting, complete with filter, glow and volumetric fog. "At the time, it was really good looking," says Patrice. "It was becoming something that people would want to show their friends, saying, 'Holy cow, come to my house because I have this beautiful game.'"

Less impressive, however, was the storyline. "Nobody on the team was happy with it," says Jordan. "They knew they needed a different story and they were very happy when I told them that I wanted to do it."

There was a strong desire to build the game around the rewind feature, as Patrice explains: "The Sands Of Time became the mechanic and the game was about telling the story of the mechanic. It all began to make sense and it allowed us to put a modern idea into a fantasy game."

At no point during discussions did Jordan want to turn the Prince into a superhero with time-rewinding powers. Instead, he wanted to bestow this capability on to an artefact: the Dagger Of Time – the only vessel, other than the Hourglass Of Time, which was going to be capable of holding the powerful Sands Of Time.

Whoever had possession of this could slow, freeze, fast forward and reverse time, and it also allowed the Prince to gain a vision of the future which would help the player see the

» [PC] The Hourglass Of Time contains the Sands Of Time which, when released, causes chaos in the palace.

» [PC] Sand Vultures can be outrun but it's always more fun to go on the attack.

» [PC] Puzzles are as much a part of *Sands Of Time* as the combat, including switches that would open doors.

» [PC] The game makes great use of the environment to produce a vast platforming playground.

[PC] Running along walls is necessary as a way of getting past numerous obstacles and traversing the palace.

[PC] The first big battle in *Sands Of Time*, introducing the wheeze of having to stab the enemy with the dagger to draw out their sand.

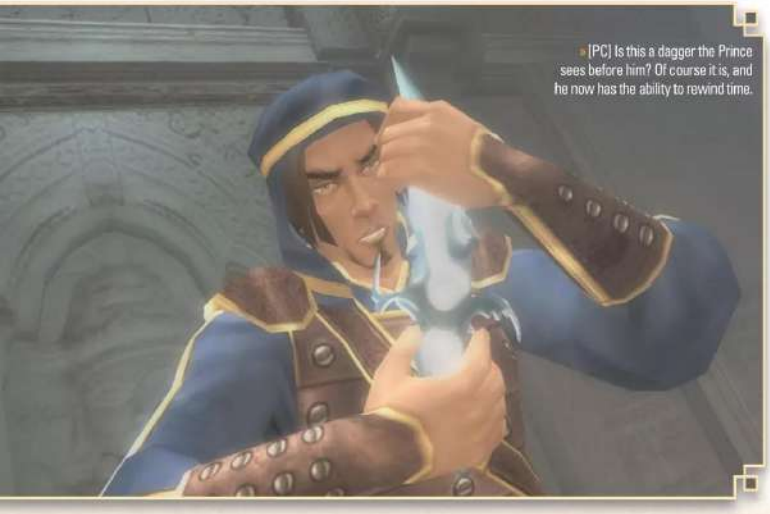
course they had to traverse in the next section of the game.

"My first challenge as a scriptwriter was to come up with a story that had the right level of complexity and gameplay," Jordan explains.

"So, in the game, you could turn back time up to 30 seconds and, the story, by extension, suggested terrible mistakes made a week or month ago could also be undone," he continues. "It was about saving the people in your life and resolving the consequences of your actions which I think is something we can all identify with. The story works because there is harmony between the macro and the moment-to-moment gameplay."

Jordan was inspired by the *Shahnameh*, a literary masterpiece by Persian poet Ferdowsi, he set the game in the ninth century and told of the Prince looting the dagger from a captured Indian kingdom, only to be tricked by the Vizier of a local Maharaja into releasing the Sands Of Time. Everyone in the palace is turned into a sand creature, except the Prince, Vizier and the Maharajah's daughter Farah. Cue the Prince's need to go back to the moments before the fatal mistake was made.

[PC] Players can encounter 12 varieties of sand creatures, including the common axe sand creature (left) and the red sand guards (right).



[PC] Is this a dagger the Prince sees before him? Of course it is, and he now has the ability to rewind time.

"We knew there were only going to be a couple of characters on-screen at once," Jordan says, "so I had to make practical story decisions. It wasn't going to be the kind of game where you're moving through a crowd and talking to people, deciding who to have a conversation with. We really wanted to put the emphasis on an acrobatic character who could respond quickly to keyboard inputs, and who you could use to chain movements together fluidly while avoiding the monsters trying to kill him."

As the plot evolved, the questions flowing through Patrice Désilets' mind were answered, one by one. "The Sands Of Time destroyed the palace, so the staircases and hallways had been ruined and you had to find a way to climb up the walls or jump between the columns," Jordan explains. By ensuring Farah didn't become a sand monster, a relationship between her and the Prince could be formed, one which drew on guilt and conflict. By having the pair converse while the game was being played, it allowed for exposition dumping through dialogue as well as helpful advice, banter and co-op puzzling in a single-player game.

Jordan told the story in the past tense. "I also wanted to give the Prince the kind of dialogue a ninth century Persian warrior would have," he says. More than 1,000 lines of dialogue were written, although only half made the cut. "That's normal and it was a matter of budget and schedule," he adds.

Jordan supervised the voice recordings. American voice actor Yuri Lowenthal provided the voice of the Prince, Joanna Wasick played Farah, Barry Dennen voiced the Vizier and William Frederick Knight and Warren Burton became the Sultan and King Sharaman. Other actors were brought on board for recordings in French, Spanish, Italian and German.

"It was just like a film shoot where you'd explain to the actors where their character is in each moment and where they're coming from," Jordan says. "I'd work over the shoulder of the sound engineer, we'd label the tapes and put them in a spreadsheet and I'd work with the programmers to make sure it was clear where everything we recorded would be used."

Jordan was also involved with the AI aspects of programming. "There's a banter in the relationship such as, 'Why are you going that way?' or, 'You've already been up here, what's the matter with you?'" he says. "These need to be triggered and carefully defined in the character AI because if there's a bug and the character says a line at the wrong time, it breaks the whole reality of the story."

In crafting the plot and the game, the developers were influenced by the PS2 game *Ico*. "It brought about the sense of the characters being in it together and we wanted a more Hollywood version of that dynamic," Jordan says. Cutscenes were deliberately kept short and only used when they were needed to advance the story. If a cutscene increased player investment in the gameplay that followed, then it was retained.

"The cutscenes were outsourced and they didn't have the consistency of the production values that we had hoped," Jordan says. "But the FMV was out of our hands. The audio helped bring a cinematic value to the game, though."

While Jordan worked on the plot, the team developed the fighting elements of the game, basing it on a martial art called capoeira which combines dance, acrobatics and music. Players would fight against both human and animal sand creatures and they had to ensure an enemy was finished off by stabbing them with the Dagger Of Time to retrieve their sand. This would allow use of the dagger's powers – each full power tank of sand allowed for a ten-second rewind.

"We worked hard on the camera," Patrice Désilets says, opting for one which would move with the player. "*Mario 64* had given us answers in 1996 but we were still trying to figure a control scheme and angles, asking what would happen if the player goes 180 degrees with the left stick – how does the character turn? Is the camera following? We spent a big amount of time working on the camera, mostly with the fighting."

Different fight systems were created and rejected as the developers looked to perfect AI and animation, with enemies needing to surprise players and complement the Prince's combat skills. Fight locations were plotted on top-down plans to figure which also indicated where the acrobatics were needed and, to help bring the game to fruition, the team was hugely expanded from seven to 50 by July 2002.

Even so, at the start of 2003, the Jade engine was creaking at the seams. It was unable to withstand the demands being placed upon it and an alternative was urgently needed. It was the last thing the development team needed but it was replaced by a 3D rendering engine created by a Ubisoft team in Shanghai and this ▶

BEYOND THE SANDS OF TIME

PRINCE OF PERSIA: WARRIOR WITHIN

YEAR: 2004
SYSTEM: PS2, Xbox, PC, GameCube
■ This sequel to *Sands Of Time* continues the story, introducing new combat and lengthening the campaign. As he flits between the past and present, the Prince can make use of two weapons at once and enjoy dozens of combos to see off the trickier waves of enemies.

PRINCE OF PERSIA: THE TWO THRONES

YEAR: 2005
SYSTEM: PS2, Xbox, PC, GameCube
■ Bringing the trilogy to a satisfying end, this game sees the Prince become more athletic than ever before. It also sees him struggle with himself, his personality split with that of the Dark Prince – an arrogant, stronger alter ego whose Daggertail weapon also helps in puzzle-solving.

BATTLES OF PRINCE OF PERSIA

YEAR: 2005
SYSTEM: Nintendo DS
■ Completists out there should play this turn-based strategy game because the story is set in the period between *Sands Of Time* and *Warrior Within* but it's really a riff on *Advance Wars* and – with poor graphics and card collecting thrown in – not a particularly inspiring one at that.

PRINCE OF PERSIA CLASSIC

YEAR: 2007
SYSTEM: PS3, Xbox 360, iOS, Android
■ We're harking back to 1989 here with a rather faithful remake of the debut game, albeit with extra moves, the ability to run up walls and graphics that brings the palace to life like never before. Checkpoints make dying a lot less frustrating and combat feels more fluid and refined.

▶ allowed the game to run faster than before. Work on a standout level was completed in time for that year's E3 where the game took pride of place in its own booth, playing on 50 screens.

"We weren't supposed to be the big game but we became it," says Patrice. "People at the show were saying, 'You've got to see that *Prince Of Persia* – there's a rewind feature and it's awesome.' But, coming back, we were told it had to be finished that year and so we had to make the hard decision to cut some portion of the game to finish it."

Jordan temporarily moved to Montreal with his family to help with the game's final push. And while the development team yearned for the deadline to be knocked into 2004, November 2003 became a firm deadline.

Every week another level of the game had to be locked in. "The textures, the lighting, the extra bits of dialogue had to be finished, never to be touched again," says Jordan. "E3 had put the pressure on and, you know, it was hard. Even when people are young and have lots of energy, it's hard on relationships and health. You come home still living, sleeping and breathing the pressure but we knew we had to ship and we did."

The PlayStation 2 version was released first on 10 November 2003, followed a week later in the US on GameCube and Xbox and the following month for Windows PCs. Sales reached 2.4 million by the end of March 2004 and Ubisoft heralded it a major success. "It was my first big breakthrough as a developer. I'd learned so much and it has stayed with me somehow," Patrice says.

And yet that's not the end of the story, because Ubisoft has been rewinding time yet again by assigning its team in India to work on a remake. It's the first time the developer has attempted such a thing and it's due for release in January 2021, making use of the same engine as *Assassin's Creed Origins* and rebuilding the original from the ground up.

"The old engine could not be upgraded to work on modern machines and the audio files were not recorded at a quality they could use," Jordan says. "So the whole thing has had to be redone in a modern engine but these are not new levels or a new story. It's a modern version with simple combat but it's much more beautiful and immersive and the camera work is better."

» [PC] The first half-hour or so of the game introduces you to its basic elements while leading you towards its pivotal moment.

Jordan was involved during the preproduction stage. "They reached out a couple of years ago and asked if there were things we had to cut back on during the original production and whether there were things that could have been done better," he says. "I told them I wanted to see improved cinematics. I also raised the idea of the Prince choosing wild animals as a gift for the Sultan – we had hoped to include that in the original gameplay but didn't have time to build a 3D tiger," he continues.

Jordan shared the original script and the dialogue spreadsheet – "everything I had in my archives". He introduced the new team to Yuri Lowenthal who has reprised his role as the Prince, this time performing using motion capture, although Jordan's involvement stopped there. "It was just a matter of how well they would be able to achieve it but that was something I couldn't really help with so I left them to it," he says.

Interestingly, the original 1989 classic is also available to play within the game (just as an unlockable bonus level based on the original was included in *Sands Of Time* the first time around). It shows that you can't keep a good game down, no matter when it was made. For there's no doubt that both the 1989 and 2003 games will be forever remembered. "This is the moment to rewind and look back," Jordan says. "And I'm very happy to see *Prince Of Persia* is still being talked about." ★

PRINCE OF PERSIA HAS BEEN AROUND FOR A WHILE

PRINCE OF PERSIA

YEAR: 2008
SYSTEM: PS3, Xbox 360, PC, Mac

■ Another reboot of the *Prince Of Persia* franchise throws players into a cel-shaded world and partners the main character – still able to rip acrobatically around his environment – with a woman called Elika who will step in when the Prince is hurt and always save him from death.

PRINCE OF PERSIA: THE FALLEN KING

YEAR: 2008
SYSTEM: DS

■ Awkwardly forcing the player to control the game using the Nintendo DS's stylus, this side-scrolling platformer looks like an unsatisfying nod to the original, with its spike-laden traps, falls and ledges to climb. It features decent puzzles at times but ultimately it feels way too repetitive.

PRINCE OF PERSIA: THE FORGOTTEN SANDS

YEAR: 2010
SYSTEM: PS3, Xbox 360, Wii, PC, DS, PSP

■ Ubisoft decided not to continue with the story of 2008's *POP* and instead went back to the *Sands Of Time* continuum to explore the rivalry between the acrobatic warrior and his brother. Linear but with a true feeling of progression as you unlock new abilities, it displays great promise.

PRINCE OF PERSIA ESCAPE

YEAR: 2018
SYSTEM: iOS, Android

■ Feeling like a cash-in of a well-known franchise, this plodding side-scrolling runner could have done with more time – more time to improve the graphics and more time to instil it with some sort of heart. It draws inspiration from the 1989 game but imprecise controls sap the fun away.

COMING FULL CIRCLE

Prince Of Persia's crowning glory is its influence

■ **Patrice Désilets, the creative director of *Sands Of Time*, wasn't keen on reprising his role on another *Prince Of Persia* game unless he could take it in a different direction.** Rather than place the Prince at the heart of a new game, his idea was for players to assume the role of an assassin for a nonplayable AI-controlled child Prince. The aim would be to rescue and lead the Prince to safety. But, after a year of preproduction on what was tentatively called *Prince Of Persia: Assassin*, Ubisoft called a halt saying it wanted the player's focus to be entirely on the Prince.

By this stage, Jean-Christophe Guyot had taken on the role of creative director for *Prince Of Persia: Warrior Within*. Ubisoft's eyes were also on the next generation of consoles: the Xbox 360 and PlayStation 3. Rather than scrap Patrice's proposals, they were built on. "They asked me to evolve the game for the next gen," he reveals.

It meant creating a new engine, codenamed Scimitar, capable of creating a sandbox world for a free-running protagonist. The Prince was taken out of the picture and the game was set in the Middle East during the Crusades. *Assassin's Creed* was duly born.

"Everything I wanted to do with *Prince Of Persia: The Sands Of Time*, such as adding crowds, I could do in *Assassin's Creed*," Patrice says. "In *Sands Of Time* we had designed a village in the bottom of the palace where the player could run on rooftops, and we said we're going to have that in *Assassin's Creed* and create a city setting."

Scimitar was also used for 2008's *Prince Of Persia*, and it evolved into the Anvil engine before being used for *The Forgotten Sands* in 2010. Used for all *Assassin's Creed* games, it is now up to AnvilNext 2.0 – the engine powering *Prince Of Persia: The Sands Of Time Remake*.

TURNING BACK TIME

Pierre-Sylvain Gires discusses the upcoming Prince Of Persia: The Sands Of Time Remake

Why is now the perfect time to bring *Prince Of Persia* back?
There are so many players that wanted to play *Prince Of Persia: The Sands Of Time* again. It's something that they kept asking for years, and so Ubisoft has listened to the fans. We wanted to bring them their favourite game again on new platforms and that's why it was the right time.

Working on remaking a beloved game must be daunting...
I grew up with *Prince Of Persia: The Sands Of Time* and I think that game gave me the desire to work in the gaming industry. There has been a little bit of pressure, obviously, to touch such an iconic game, but you just have to take the challenge and we actually were very happy to work on this project.

Have you drawn on Jordan Mechner's expertise?
We were in touch with Jordan Mechner during preproduction to see what we could improve, and having his input as the 'father of the Prince' was essential. We had the chance to work with Yuri Lowenthal again, too.

Is it a one-for-one remake or a spirited reimagining?
The remake is a huge market now and we rebuilt the game from the ground up, using a new engine that was used for *Assassin's Creed Origins*. But regarding the narration, we stay true to the original. The game is so strong, the narration is so beautiful, that we stick to the gameplay and the matrix of the original game, but we definitely had some new dialogues that were on the original script but not present on the original game. We also brought things from the original design and things that we change a lot for the game to make it more accurate for the players: especially the combat and the camera that we revisited a lot, because we wanted to really improve and enhance the velocity of the Prince, but also the control for the player and the responsiveness for the player.

What should an *Assassin's Creed* player, who has never played *Prince Of Persia*, expect from *Sands Of Time*?
I think *Sands Of Time* was perfectly balanced and it's the balance between the platforming with the combat and the puzzles – plus the beautiful narration between the Prince and [Farah] which is like a true movie. *Assassin's Creed* is, of course, 'the son of the Prince', but *Sands Of Time* is not an open world. It is very different in terms of gameplay and approach for the balancing of the game. ★

Read more about *Prince Of Persia: The Sands Of Time Remake* at *Gamesradar*, wall-run your way over to bit.ly/gr_prince.

■ Farah was originally voiced by Joanna Wasick but Supinder Wraich has taken over the role here. You can still rewind to the past, though: you can opt for original mapping and even play the original *POP* (albeit the 1992 Mac version).

PRINCE OF PERSIA
THE SANDS OF TIME
The devs call it 'the revision of the three Cs' with the remake having rebuilt combat, controls and, crucially, the once often-unresponsive camera to better bring the 2003 game into the modern age.
The mechanics of the game are the same (as is the story) but a full lighting system has been created and the graphics have been redrawn with prebaked rendering to bring them up to date.
Prolific voice actor Yuri Lowenthal is voicing the Prince once again, with new lines taken from the original script and added for his interactions with the princess Farah.
The free-flowing melee combat remains, and Ubisoft says it has worked hard to maintain a balance of platforming, fighting and puzzles in this remake.
Yuri Lowenthal and the other actors were motion captured in new sequences, something which wasn't attempted in the original game but allows for greater realism in the Prince's movements.

UPDATING A CLASSIC

How the developers rewound then fast forwarded

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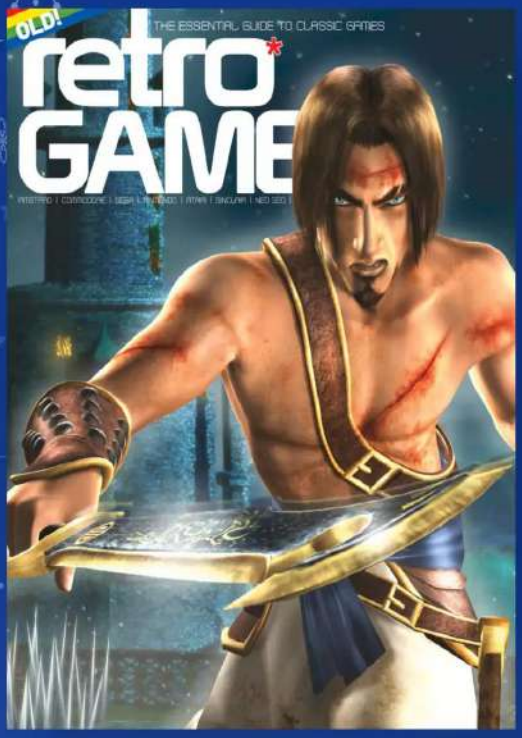

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THE EVOLUTION OF Gribbly's Day Out

Andrew Braybrook's first and last original games for Graftgold combined platforming with projectiles. Andrew reveals the inspirations for Gribbly's Day Out and how it influenced a series of platformers, including Fire & Ice

WORDS BY RORY MILNE

Platforming is a well-defined genre, but this hasn't always been the case. When Andrew Braybrook started work on *Gribbly's Day Out* in the mid-Eighties, coin-ops like *Joust* and *Bomb Jack* involved flying from platform to platform instead of jumping between them. Andrew's design followed their lead, but his player character, Gribbly Grobbly, was inspired by the opponents in an obscure arcade title and had made his debut in a Dragon 32 conversion. "The little hopper graphic fitted neatly into an 8x8 character," Andrew says of Gribbly's debut, "and it provided the Dragon *3D Seiddab Attack* with a bit of on-screen movement. It was based on the hopper creatures in *Tazz-Mania*, a coin-op we had in one of our local watering holes. *Gribbly's Day Out* had not been thought about at that time, but sometimes an idea really screamed out to be in the next game."

» *Gribbly's Day Out* and the CD32 *Fire & Ice* were Andrew Braybrook's first and last original Graftgold games.

But as Andrew soon found out, adapting the low-res Gribbly into a larger, more expressive form had an impact on the character's abilities. "The design of the Gribbly sprite had a lot of knock-on effects," Andrew points out. "I wanted to link Gribbly's mouth graphic to whether he was gaining or losing points, his antennae kept waving about, and his eyes blinked. All of that took up about half of the height of the sprite, leaving no space for a body, so a single foot was used. This meant that Gribbly couldn't walk or jump, so I had to think of other ways for him to get around."

» [C64] SEON is a crab-like end-of-level boss that stalks Gribbly in *Gribbly's Day Out*.

» [C64] The technically and aesthetically improved *Gribbly's Special Day Out* has more power-ups on level zero.

The obvious solution was to have Gribbly use his single foot to bounce about, but Andrew stopped short of allowing him to hop from platform to platform. "I never thought of having Gribbly bounce to other platforms," Andrew notes, "and indeed the mechanism wasn't there, though it would have probably not been a big change. I *did* design it so that he could fly from any point in a bounce. But once he could fly, then bouncing from platform to platform would be more difficult than that, and so it would have been pointless."

As Gribbly evolved, Andrew looked to give his one-footed protagonist some opposition when he struck upon the idea of having the foes evolve on-screen. "I was just designing the sprites for the meanies and realised that I could do a few

> "SEON seems to have been my most evil creation. His clacking pincers and relentless pursuit of Gribbly [wound up] a lot of people!"
>
> ANDREW BRAYBROOK

» [Dragon 32] Gribbly Grobbly debuted as a bouncing sprite in Andrew Braybrook's Dragon 32 *3D Seiddab Attack*.

[Arcade] The Gribblets in *Gribbly's Day Out* were inspired by the Hoppers in the Stern coin-op *Tazz-Mania*.

transformation frames for them to go from one state to another, and it all seemed to fit nicely," Andrew explains. "The levels were big enough for them to make progress and small enough that the player could see it all happening. The player also had the extra knowledge that knocking out a meanie in an early stage would prevent its later stages from being produced."

In order to motivate players to stop Gribbly's enemies evolving, Andrew started them off as fairly benign Seed Pods that pirouetted down the screen, which ultimately mutated into aerially adept Fliers obsessed with kidnapping Gribbly's infant charges. Andrew also created a terrifying boss. "There was a bit of feed-in from *Defender* – with the Gribblets being picked up by Fliers, and their recovery," Andrew

[C64] If a Flyer abducts a Gribblet, you have to shoot them free then catch them.

[C64] The ultimate goal of *Gribbly's Day Out* is to get Gribblets to the safety of a cave.

[C64] The psi webs in *Gribbly's Day Out* are lethal, but you can deactivate small sections.

acknowledges. "However SEON – standing for 'Sixty-Eight-O-Nine' – seems to have been my most evil creation. I needed a character to give the player a wake-up call towards the end of levels, and it turned out that his clacking pincers and relentless pursuit of Gribbly [wound up] a lot of people!"

A further addition to Andrew's debut came in the form of deadly 'psi webs', which were strung between the platforms of his game's cavernous levels and could be turned on or off by players. "I wanted the webs to keep SEON under lock and key," Andrew considers, "then I decided to give the player the key! I left pathways for common routes so that players could avoid changing the webs if they wanted to. I had also thought about having some creatures that moved along the webs, but I ran out of sprite space long before I tried that. The webs also gave the player something else to do while flying."

Allowing players to use the psi webs to keep SEON trapped gave Andrew a dilemma, however, in that it took his boss out of the game, so he configured them to permanently deactivate when levels were close to being completed. "The psi webs dropping when there was only one Gribblet left to rescue gave the player a lot more freedom of movement to go find the last one," Andrew reasons, "but it was at the expense of releasing SEON to chase them. This therefore sped up the end of the level and raised the tension."

Gameplay innovations, such as the boss fights in *Gribbly's Day Out*, were duly

STAGES OF EVOLUTION: GRIBBLY'S DAY OUT ON THE ARC

STEVE TURNER REMEMBERS THE ENHANCED 32-BIT PORT

How did *Gribbly's Day Out On The Arc* come about?
Coin-Age approached us, rather than the other way around. I thought there was nothing to lose, because we weren't going to pay anything towards it, but if it managed to sell a few then it would be a few more bob in our pockets.

Why did Coin-Age decide to convert *Gribbly's* to the Archimedes?
Coin-Age must have been fans of the game, because it was weird to choose that one rather than something more modern. But we let Coin-Age get on with it, with the thought that it might lead them on to converting our other titles.

Why was the Archimedes SEON more aggressive than his C64 counterpart?
It could have been that Coin-Age was doing a line-by-line code conversion, and it didn't slow it down for the Archimedes. It might have been that Coin-Age didn't have much game sense. I can't remember Andrew Braybrook playtesting it. We did have an Archimedes so we could feasibly have run it, but I don't remember seeing a copy until it was released.

Why didn't Coin-Age design new levels for the Archimedes *Gribbly's*?
Andrew would've said to feel free to build on it and to add nice little touches, but Coin-Age probably didn't want to spend too much time on it. It could probably only budget for a few weeks of work to pay for the game – it was a small company living by self-publishing, I believe.

STAGES OF EVOLUTION:

POWERGEN & NIPPER VS THE KATS

STEVE TURNER DISCUSSES GRIBBLY'S FORGOTTEN LEGACY

In your own words, how would you describe *The PowerGen Game*?
It was all about going underground to collect coal, bring it back and then put it in the power station, which then lit up some lights. That was the brief for the game – to show the connection between the coal and the power.

Who got a chance to play it, and where?
One of PowerGen's facilities was an open power station where visitors could go. There were lots of school kids, and so PowerGen wanted to build our game into a cabinet and let them have a go at it.

How did *The PowerGen Game* lead on to *Nipper Vs The Kats*?
It was the same advertising agency that employed us both times. We used the same formula rather than going back to *Fire & Ice*; we virtually took *The PowerGen Game* and put new graphics in.

Was freezing and then kicking enemies away unique to *Nipper*?
Well there was a way that you could defeat enemies in *The PowerGen Game*, I think you could jump on them, and I have a feeling there were gems that gave you superpowers.

Why did you base your PowerGen and HMV games on *Fire & Ice*?
The *Fire & Ice* engine was easy to reuse, because it was done with Andrew's AMP game system, which meant you could write games as a script. So it was very easy to write new patterns for the meanies.

noted in the reviews that it received when it came out, with its best write-up appearing in the popular C64 magazine *Zzap!64*, which 18 months later premiered Andrew's follow-up. "*Gribbly's Special Day Out* was developed in 1986, and a two-level demo appeared on a *Zzap!64* cover tape in 1987, but only later did it come out on Hewson's budget label," Andrew says of his sequel's 1988 release date. "1987 was something of an upheaval year for us. We felt we had to take *Morpheus* somewhere else when we heard that Andrew Hewson was going to sell it to another publisher anyway. We felt it was not his to sell, and I expect that legal spat upset the apple cart."

Although nothing to do with legal spats, Andrew didn't make *Gribbly's Special Day Out* much harder than its predecessor, unlike the follow-up to his hit shooter *Uridium*. "I'd have tinkered with the original after release for my own amusement," Andrew reckons, "but *Gribbly's Day Out* was a different sort of game because you had to get through the gaps, and I wouldn't have made the gaps any smaller because that would get too frustrating."

» [Amiga] Andrew Braybrook applied the lessons he learnt from adapting *Rainbow Islands* to *Fire & Ice*.

» [Amiga] *Turrican II*'s bridges and background fades inspired similar special effects in *Fire & Ice*.

> "Fire & Ice was going to have more of a Gribbly's character, at least the bouncing part – we had a dog with big floppy ears"
>
> **ANDREW BRAYBROOK**

» [Master System] The levels in the Master System version of *Fire & Ice* are simplified iterations of the original's stages.

Andrew was also more conservative in terms of level design changes than he was with *Uridium*'s sequel, *Uridium Plus*, but he did add more energy-replenishing psi grubs to his *Gribbly* follow-up's opening stage. "My natural instinct was to revise anything that was an issue," Andrew explains, "so if people needed a bit of help at the beginning with some bonus energy, then I would have tweaked that. I wish I had also put a background graphic in to say 'Home Sweet Home' to identify the home cave, and to clarify that it was where you were supposed to bring the Gribblets."

Four years later, Andrew's omission from his C64 sequel was incorporated into Coin-Age Limited's enhanced Archimedes *Gribbly* port *Gribbly's Day Out On The Arc*, which as well as 'Cave' signs, had a pause mode with a bored Gribbly whistling tunes to keep himself entertained. "I didn't know too much about the Archimedes or its capabilities, so I just let Coin-Age get on with it," Andrew says. "I didn't interfere since to start adding features would have been committing Coin-Age and me to more work, and Coin-Age would have wanted to get the title out there while it was still fresh."

In fact, not only did Andrew not interfere in the development of *Gribbly's Day Out On The Arc*, but he also didn't play the finished game.

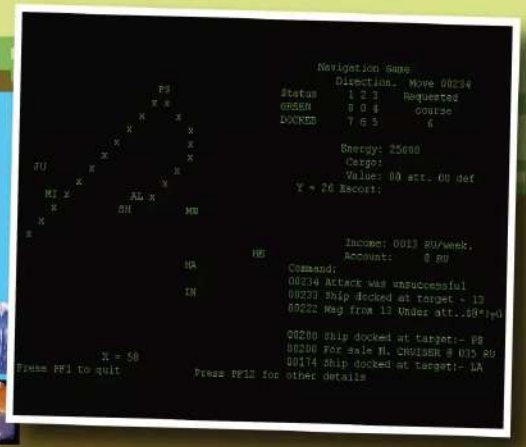
[Amiga] The spiritual successor to *Gribbly's Day Out – Fire & Ice* – includes a *Gribbly's* tribute level.

"I never saw it running, I just got a couple of photo screenshots," he admits, "but it did inspire me to think about an Amiga version. It looked nice, with its sunset colour fade for the sky and some more detailed graphics than the C64 was capable of. The fade, plus seeing *Turrican II*, was what got me to setting up some of the *Fire & Ice* background colour fades."

Essentially a spiritual successor to his *Gribbly* games, Andrew's Amiga platformer *Fire & Ice* was influenced by more than just *Turrican II*'s colour fades. It also took inspiration from his recent coin-op conversion and one of his pre-Graftgold games. "I liked the rickety bridges in *Turrican II* that dipped down under the player, so I popped them in," Andrew recalls. "*Rainbow Islands* taught me a lot about bonuses and the movement algorithms in a platform game. We also had some patrolling fire creatures that took inspiration from my COBOL game *Navigate*. They lived in pots, came out periodically and headed off to set fire to targets before returning. You could protect one target or try to get the creatures when they left or returned to their hiding place."

[Atari ST] Rescuing *Fire & Ice*'s puppies is optional, but it gets you extra lives and points.

[Archimedes] *Fire & Ice*'s frosty ladders enable you to reach higher platforms, but they melt quite quickly.



[PC] The enemy ships in Andrew Braybrook's COBOL game *Navigate* influenced *Fire & Ice*'s flame creatures.

As well as opponents, *Fire & Ice* also required a player character, and at least in its original form it took its lead from Gribbly Grobbly. "*Fire & Ice* was going to have more of a Gribbly's character, at least the bouncing part – we had a dog with big floppy ears," Andrew remembers. "Gribbly only bounced across the flat ground, which kept things simple, whereas *Fire & Ice* had contoured landscapes, although the bouncing – once tweaked – worked fine. However, the publisher thought it was a bit too radical, so the character was recreated in the Sonic style and became Cool Coyote."

More in keeping with *Gribbly's Day Out* was that *Fire & Ice*'s coyote hero was tasked with rescuing smaller versions of himself, although unlike Gribblets, Andrew made *Fire & Ice*'s puppies loyal followers. "Getting the puppies to follow the Coyote and go ahead of him on demand was quite a complex bit of coding," Andrew observes, "and I wouldn't have thought of anything that complex on 8-bit. Since there were bonuses for getting the puppies through the exit, then they had to be able to go up the ice ladders as well as follow the landscape."

Another improvement on *Gribbly's* was made with *Fire & Ice*'s power-ups, in that where

[PC] The bouncy clams in *Fire & Ice* provide a way to escape the depths of the ocean stages.

[Amiga] Christmas With Cool Coyote is a Christmas-themed *Fire & Ice* level designed for *Amiga Power* magazine.

[CD32] The CD32 *Fire & Ice* boasts parallax scrolling backdrops, a CD soundtrack and gamepad support.

> "Fire & Ice took over a year to program, and by the time it was released I'd probably had my fill of programming platform games"
>
> ANDREW BRAYBROOK

the C64 title only had power-restoring psi grubs its 16-bit successor had many weapons. "The ice blocks were good because naturally they could melt, and they would melt faster in the hotter levels," Andrew says of *Fire & Ice*'s main source of pick-ups. "The clouds provided a way to get more smart bombs, the downside being that it used valuable time. They could also get angry and fight back, so you had to get away from them, and their random lightning generator was different every time. The sonic bark power-up was brilliant – it was a sound effect and a moving collision area with no graphic, so it was very cheap to run!"

Besides providing players with power-ups in his Amiga platformer, Andrew also wanted to give *Fire & Ice* stages where the entire purpose was to provide bonuses, and he based one of these on his first C64 original. "Spurred on by the Archimedes *Gribbly's*, I wanted a homage to *Gribbly's Day Out*," Andrew reveals. "However, its floating landmasses had to be more closely packed, as Cool Coyote couldn't fly – introducing a mechanism to fly and/or collect Gribblets might have been stretching people's memories of *Gribbly's* too far. But by having the meanies steal the bonuses, it introduced a 'time is precious' [mindset] to get players moving around quickly."

On its release, *Fire & Ice* was showered with superlatives by reviewers and Amiga gamers alike, so it's not surprising that *Amiga Power* magazine later requested a demo version to give away with its final issue of the year. "We were asked for a level of *Fire & Ice* for a Christmas issue, so we thought we would alter the graphics to make them Christmassy!" Andrew enthuses. "We only needed one level, so we split up the graphics between the graphics artists for them to apply some Christmas cheer. We then had a new level layout made up. We probably only had a couple of weeks to get it done, so we just used features we already had. But any ideas the lads had along the way would have gone in, as well as leftover ideas that we hadn't put in *Fire & Ice*. It was a case of 'anything goes'!"

The following year, Graftgold was asked to make promotional platformers for a power company and a record shop chain, then it subsequently landed a contract with Sega for a licensed platformer, and it met these projects' deadlines by repurposing *Fire & Ice*. "I was involved in making and sending the disks off for *The PowerGen Game*, and I was games support for HMV's *Nipper Vs The Kats*, although I also did a teeny bit of coding," Andrew says. "I remember altering a couple of meanies in *The Ottifants* for Sega on the last day of development. We pulled an all-nighter and I reversed my car into a wall the day after. There's a lesson there!"

Not long after, Andrew found himself revisiting *Fire & Ice* for a second time, with the

[Amiga] The ice hockey level of Graftgold's *Virocop* features a cameo from *Fire & Ice*'s Cool Coyote.

difference being that he and his team were now designing an aesthetically enhanced iteration for the Amiga console – the CD32. "I had thought that the original's backgrounds looked rather empty at times," Andrew concedes, "and the CD32's African background received special attention. We were able to split the two sides of its river apart so that the trees and volcano parallaxed against the foreground path. It gave the whole thing a bit more of an arcade feel."

Like the Amiga original, the CD32 *Fire & Ice* was very well-received, as was Graftgold's next project – *Virocop*, which featured a cameo by Cool Coyote. "I can't remember whose idea it was to include our own characters in the crowds," Andrew ponders, "but it gave the graphics artists a challenge to upgrade some of the older graphics, and hopefully it made players look out for things that were familiar."

In reviewing *Gribbly's Day Out* and its long line of successors, Andrew seems content not to continue the series, but he does offer hope that he might revisit the genre someday. "Being my first original game, I tried to get a bit of everything in *Gribbly's* using a lot of hardware features," he reflects. "*Fire & Ice* took over a year to program, and by the time it was released I'd probably had my fill of programming platform games for a while. I don't think I could add anything to the genre these days, but I'm not ruling out doing something new as long as the design uses the platforms as a means to an end."

STAGES OF EVOLUTION: THE OTTIFANTS

GRAFTGOLD'S STEVE TURNER ON GRIBBLY'S FINAL SPIRITUAL SUCCESSOR

How much did *Fire & Ice* influence *The Ottifants*?

It was derived from the *Fire & Ice* game engine, because originally we were asked to produce it in just six weeks. But Sega hardly got the contracts signed by the end of six weeks, and then it came up with 101 things that it wanted to add!

How did you adapt *The Ottifants* into a platformer?

The books were all side-on views, so you could see that they would work on the *Fire & Ice* game system. If you took a sheet of the cartoon, it was just like a platform game with little bubbles of speech, so it seemed to be quite a nice match for it.

How did you reflect *The Ottifants* cartoons in the game?

The jungle level was all to do with the office of the baby Ottifant's dad. It had this room with plants, and the baby was frightened to go through that. He didn't like the basement either, because it had a boiler that groaned and glowed like a fire, so we made that into a dungeon.

Why wasn't *The Ottifants* more successful?

It was just thrown onto the market. It had been sold to us as this enormous project, because the characters were going to be everywhere, and our game was going to be part of a huge marketing campaign. But because the TV channels didn't pick the cartoon up, it was like a dead donkey to Sega.

Hardware Heaven

Gemini

» **MANUFACTURER:** Coleco » **YEAR:** 1983
» **COST:** $59.99 (launch), £50+ (today, boxed), £20+ (today, unboxed)

The ColecoVision was a pretty exciting console in 1982, especially since it offered one thing that the competing Atari 5200 didn't – an adapter that enabled backwards compatibility with the Atari 2600 library. Atari quickly launched legal action, which was settled out of court when Coleco became an Atari patent licensee. This not only allowed Coleco to continue to make the Expansion Module No 1, the device that started the argument, but enabled the company to market a standalone Atari 2600 clone called Gemini.

Compared to the official Atari 2600 model available at the time, Coleco's console was smaller and a little more modern in appearance. The Gemini operated in identical fashion to Atari's own machine too, including all of the option switches and connection ports of its official counterpart. The biggest difference was the inclusion of dual-function controllers. Each controller bundled with the Gemini featured both a joystick and a paddle, giving a slight convenience gain as it was no longer necessary to swap controllers when switching from a paddle game to a joystick game or vice versa. Unfortunately for Coleco, this attempt to ride the Atari wave was limited by the fact that the Gemini launched into the North American videogame market crash of 1983. ✱

Gemini fact

■ The mail-order music club Columbia House offered Coleco Gemini systems rebranded as Columbia Home Arcade, which it supported through the Columbia Video Game Club service.

PROCESSOR: 8-BIT MOS TECHNOLOGY 6507 CPU (1.19MHZ)

GRAPHICS: TIA (TELEVISION INTERFACE ADAPTER) WITH MAXIMUM 160X152 RESOLUTION, FIVE OBJECTS (TWO SPRITES, TWO MISSILES AND A BALL), UP TO FOUR COLOURS PER LINE (FROM PALETTE OF 192)

AUDIO: TIA WITH TWO CHANNELS OF 1-BIT MONO SOUND

MEDIA: ROM CARTRIDGE (4KB, UP TO 64KB WITH BANKSWITCHING)

RAM: 128 BYTES

ESSENTIAL GAME

River Raid

Due to the fact that the Gemini is functionally identical to an Atari 2600, there's nothing that will particularly show off Coleco's design. With that in mind, the only thing to do is pick a brilliant Atari 2600 game, and in this case we're plumping for Carol Shaw's excellent *River Raid*. This vertical shooter is a brilliant score-attack challenge decades after its original release, thanks to its varied terrain and a risk/reward system that allows you to shoot away fuel depots in exchange for a good amount of points. It's a timeless classic, no matter what you play it on.

SYSTEM SUPPLIED BY **EVAN AMOS**

LICENCE TO THRILL

NOW SHOWING: THE EVIL DEAD

» [C64] The cabin soon becomes infested with evil spirits.

FILM

- **» YEAR:** 1981
- **» DIRECTOR:** Sam Raimi
- **» STARRING:** Bruce Campbell, Ellen Sandweiss, Richard DeManincor, Betsy Baker, Theresa Tilly
- **» BUDGET:** $350,000
- **» BOX OFFICE:** $2.7 million

GAME

- **» YEAR:** 1984
- **» DEVELOPER:** Palace Software (Richard Leinfellner and Peter Stone)
- **» PUBLISHER:** Palace Software
- **» PLATFORMS:** Commodore 64, ZX Spectrum, BBC Micro

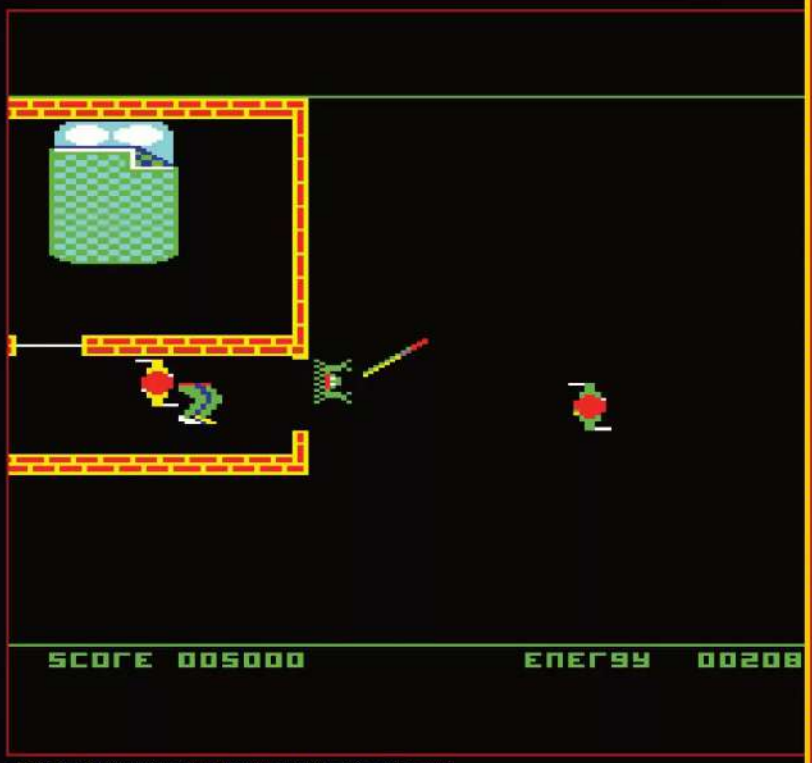
Released in 1981, Sam Raimi's The Evil Dead is the original video nasty, a cult horror hunted down by puritans such as Mary Whitehouse, especially following its home video debut. Almost 40 years later, we take a look back at the videogame the movie inspired. Groovy!

Words by Graeme Mason

Following on from an iconic decade for horror movies, the Eighties was a turbulent time for fans of the genre. The tabloid newspapers had caught on to the phenomenon, and in the traditional mainstream media fashion, a scapegoat was needed for all of society's ills. Horror movies, loved predominantly by daring teens and young adults, were an easy and predictable target, with *The Evil Dead* one of those releases at the heart of the debate. Yet it wasn't just this notoriety that marks out *The Evil Dead* as a prestigious member of the fright club – the way the film was produced was also innovative, beginning life as *Within The Woods*, a proof-of-concept short designed to generate investment. The novel crowdfunding exercise succeeded, and with a modest budget assigned, director Sam Raimi, together with his friends Robert Tapert (producer) and Bruce Campbell (lead actor) set about converting the short into a fully fledged feature. The result, renamed *The Evil Dead*, sees five students, including Ash (Bruce Campbell) and his sister Cheryl (Ellen Sandweiss), journey to a remote cabin in Tennessee for a short getaway. Unfortunately for the quintet of vacationers, the dilapidated cottage is haunted, and, after an ill-advised recital of an archaeologist's bizarre recording, its resident demonic entity is resurrected, possessing and torturing the youths in turn.

» [BBC Micro] A useful guide in what to expect...

It's not hard to see how *The Evil Dead* attracted the ire of the UK's moral guardians: limbs and heads are removed, eyes are gouged and, in the movie's most infamous scene, Cheryl is sexually violated by demonically possessed trees. With its original US release garnering enough interest to see it



» [BBC Micro] Fighting nasties outside the eastern side of the cabin… with a sword.

licensed overseas, the film arrived in the UK in 1983, just as the term 'video nasty' was beginning to gain traction in the nation's newspapers. The subsequent banning of its video release saw *The Evil Dead* touted as the 'number one nasty' by activist Mary Whitehouse, possibly due to it being the most high-profile of its peers. And because it has blood. Buckets of blood.

In the UK, *The Evil Dead* was distributed by Palace Pictures and Palace Video, handling the cinema and home releases respectively. Set up by Nick Powell (who passed away in 2019) and Stephen Woolley, Palace was soon involved in the fledgling computer software market, forming Palace Software in 1984. Having covered for a friend's Saturday job at the Palace Video store in Kensington, Richard Leinfellner found himself heading up the company's videogames division along with Peter Stone. "I said we should make games because we've got access to licences," begins Richard. "Palace Video was distributing things like *The Evil Dead*, so we went to Nick and he said it was a good idea – it was literally formed just like that." When it came to Palace's first game, its biggest movie to date seemed like a good starting place. "There probably wasn't even any money passing hands," says Richard. "And it was just seen as a way of promoting the movie. If we paid anything, it would have been a pittance." With Richard handling coding and Peter Stone the game's graphics, Palace Software set up base at the Scala Cinema, doubling as storage for Palace's master tape collection. "We got raided by the Obscene Publications Squad because of *The Evil Dead* movie!" laughs Richard. "They basically came in and took all those ▶

» [C64] Low on energy and chased around the cabin by demons – can you survive the Evil Dead?

MOVIE TO GAME COMPARISON

How key scenes from the film appeared in Palace Software's spook-'em-up

ENTERING THE CABIN

Even though the scene takes place in sunlight, the first time the teens approach the cabin is a tension-laden moment as Scott nervously uses his key to open the door. Events have already superseded this moment in the game, but the player still has to enter, ready to face the evil within.

THE SWING

Even before Ash and company enter the cabin, they encounter the mysterious wooden swing, which seemingly rocks with its own volition. Is it possessed, and a warning to the horrors that lie in the forest? No doubt constructed from the malevolent trees nearby, it could well be!

THE FIREPLACE

Every woodland retreat needs a fireplace, and the cabin in *The Evil Dead* is no exception. Scotty is almost forced into it, while the Book Of The Dead meets its end in the flames. The aim of the game is to survive long enough that the book appears and can be thrown into the fire.

THE POSSESSED

Having awoken the demons, each character (save for Ash) succumbs to the demonic possession at various points throughout the movie. This ZX Spectrum loading screen does the best job of recreating a zombie-like possessed teen, and the dismembered parts litter the game's play area.

MAD AXEMAN

While the chainsaw features briefly, it is the axe and shovel that appear most prominently as possessed-chopping implements, most notably when Scotty dismembers Shelly with the former, and Ash decapitates Linda with the latter. Both can be picked up and used in the game.

ARTISTIC LICENCE

Err... was that in the film?

MIGHTY SWORD

■ While a sword would have been hugely useful in combating the possessed menace of the Evil Dead, sadly Ash and co could never quite find one in the original movie, having to make do with axes, chainsaws, shovels and shotguns. Oh well.

LEGS ELEVEN

■ While possessed legs feature in the movie, as does practically every other appendage, you don't see them striding freely around the cabin and giving Ash a hefty kick up the backside whenever they get the chance.

DEVILISH TUNE

■ An early example of the wondrous music that could be conjured from the Commodore 64's SID chip, *The Evil Dead* has a suitably Gothic yet jaunty tune that plays over the game's intro and plot exposition. Strangely, the game also misspells the lead character, insisting on naming him Ashly rather than Ashley or, even better, Ash.

» The adverts portrayed the horror a damn sight better than pixels could at the time.

> **"Pete was literally colouring in squared paper and I was coding into hexadecimal"**
>
> Richard Leinfellner

▶ master tapes away, and Pete was saying, 'Don't tell them what you're working on or they might take the computers as well!'" Having only dabbled in computing at this point, Richard had already acquired a Commodore 64 programming manual from a Foyles bookshop and begun to work his way around the computer. But before he could begin coding *The Evil Dead*, he had to watch the movie itself. "Actually I don't really like horror movies," he admits. "But we went round Pete's place and got some pizza in and watched the film together. We took note of the key scenes, like the swing, getting through doors and barricading the house, and quickly settled on it being a survival horror type of game, taking it from there." With the game design done and dusted within two days, Richard and Pete began work. "Pete was literally colouring in squared paper and I was coding into hexadecimal," remembers Richard. "It was very labour-intensive, and Pete's not an artist, so it didn't look great. While making *The Evil Dead*, we realised we needed an artist!"

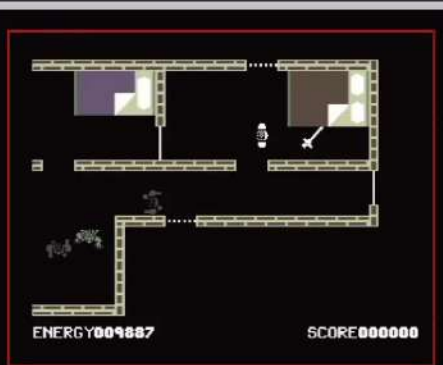
» [C64] The Commodore 64 original has a cumbersome intro which at least features some cool music.

But regardless of the game itself, it was its subject matter and licence that was most likely to create publicity. Did Palace worry that it was foisting an adult-themed videogame on a predominantly teenage audience? "Yes and no," grins Richard. "I don't like horror movies, so it wouldn't have been my choice, but it was the one we had available. At the time, there could be a link made to the fact that this was an 18-rated movie, and we were making a kids game out of it. But it was a different time, and it seemed really harmless to be honest." When the officers of the Obscene Publications Squad descended upon the Scala Cinema, Richard suddenly

NOTABLE VERSIONS

BBC MICRO

■ There are a few nice extra details in this BBC version. A green text intro comprehensively sets the scene, along with an explanation on how to play the game, while a cast screen lists all the characters, good and bad, that appear.



COMMODORE 64

■ The original, created by Palace's Richard Leinfellner and Peter Stone. There's not a lot to *The Evil Dead* as the player picks up weapons and attempts to defend the cabin. Still, there's a wonderfully creepy tune to enjoy during the protracted intro.

ZX SPECTRUM

■ With sparse graphics and a player character that trudges around each screen, there's even less to recommend in the Speccy port save its ghoulish loading screen. The game was not even deemed worthy of a solo release, limping out on the B-side of *Cauldron*.

» [BBC Micro] A companion lurks nearby as Ash enters the doomed cabin in the woods.

» [ZX Spectrum] Better grab that axe. You're gonna need it in the fight to come.

» [C64] The movie's characters all feature on the high score screen.

thought that maybe it wasn't quite harmless – yet ultimately it was the game's simple display that helped assuage the press and angry parents. "A computer nasty it is not," concluded *Your Computer* magazine in its September 1984 issue review. "[...] Anyone who fears, or hopes, that it might be a real sickener will be disappointed."

The Evil Dead, with the Commodore 64 as its lead version, is presented in a top-down view with the player taking on the role of Ashley, initially standing outside the ominous cabin. Inside are Ash's friends, along with a constant parade of nasties, from dismembered legs, arms and heads to fully formed possessed mutants. Also strewn around are helpful objects such as wooden planks, axes and swords, and these can be used to either block up the windows or destroy the many enemies that beset the small selection of rooms. It's an uncomplicated concept, and one that relies on much trial and error in order to devise the most effective tactics for survival. "It's quite a basic design," confesses Richard, "and it was inspired purely by the barricading of doors and the chopping of people's limbs off." However, even Richard's simple blueprint failed to escape the dreaded bugs, with one in particular causing him grief, as he explains. "To this day, there's a bug where one of the doors starts opening when it should be shut. I still don't know why...maybe it's 'the curse'?"

Hold on... a *curse*? "It was for personal and marketing reasons – it got us some really good PR," beams Richard. "Mainly, as I was delivering the master tapes for *Evil Dead* to the duplicator, I got knocked off my bike by a white van outside Euston Fire Station." It does indeed sound as if the fates didn't want the game of *The Evil Dead* to reach the public.

"Or maybe it was Mary Whitehouse driving that van!" chuckles Richard. Prior to the motorbike incident, Palace Software had troubles of its own with the game's launch party that was held, appropriately, at the London Dungeon. "It was so typical of game development back then," says Richard. "We had a game launch party without a game..." Showing off a few limited videos of the Commodore 64 version of *The Evil Dead* proved a stressful time for the game's designer, who proceeded to consume a large amount of – again, appropriately – Bloody Marys. "I was interviewed later on, and one of the quotes was that Richard Leinfellner is starting to look like one of the exhibits!"

The curse notwithstanding, *The Evil Dead* was completed, delivered to the duplicators and released on the Commodore 64 to a muted reception. With the small team at Palace Software already moving on to other projects, third-party coders were brought in to convert the game to the BBC Micro and ZX Spectrum, the latter not even deemed worthy enough to be sold on its own, sneaking out as a B-side to Palace's spooky follow-up, *Cauldron*. "Ironically, we started out with licensing, and planned to do more," notes Richard. "But it became a bit awkward because people actually started wanting money for it. So we decided to focus on producing original games, or rather games that were inspired by other properties – for example, *Barbarian*, which was basically *Red Sonja*."

For Palace Software, greater things, such as the aforementioned *Barbarian*, would soon come, and despite the inauspicious beginning, *The Evil Dead* served its purpose in getting the new publisher public recognition and column inches in the gaming press. And as his first published game, it holds a particular place in Richard Leinfellner's heart. "My cousin went to a Comic Con a few years ago," he remembers, "and Sam Raimi was there signing autographs. My cousin went to talk to him and told Sam that I did *Evil Dead* on the Commodore 64. And he replied 'Yes, and I've got a copy on my shelf!' So that's my claim to fame right there, that my game is on Sam Raimi's shelf!" *

THE TRIVIAL DEAD

Fearful Evil Dead facts

- Lead character Ash became famous for his trademark exclamation of 'Groovy!', but he doesn't actually say it in the original movie.
- Likewise the chainsaw, which makes a brief but unused cameo.
- Joel Coen, half of the Coen Brothers directing partnership, was assistant film editor on *The Evil Dead*, one of his earliest film jobs.
- The goo effect from the infamous melting zombies at the end of the film is a mix of oatmeal, marshmallow and Madagascan cockroaches.
- Sam Raimi's original title for the film was '*Book Of The Dead*'.
- *Evil Dead II* was released in 1987, followed by a third instalment, *Army Of Darkness* (1993), a remake in 2013 and a sequel TV series *Ash Vs Evil Dead* (2015). A further movie, *Evil Dead Rise*, is currently in development.

THE MAKING OF

GRAND PRIX 2 Simulator

The Oliver twins' sequel to Grand Prix Simulator was their final contribution to the popular Codemasters simulator series. Philip Oliver explains how regrets over their original game inspired its much-improved sequel

WORDS BY RORY MILNE

DEVELOPER HIGHLIGHTS

PRO SKI SIMULATOR
SYSTEM: AMSTRAD CPC, VARIOUS
YEAR: 1987

PRO BMX SIMULATOR
SYSTEM: AMSTRAD CPC, VARIOUS
YEAR: 1988

JET BIKE SIMULATOR (PICTURED)
SYSTEM: AMSTRAD CPC, VARIOUS
YEAR: 1988

IN THE KNOW

PUBLISHER: CODEMASTERS

DEVELOPER: PHILIP AND ANDREW OLIVER

RELEASED: 1989

PLATFORM: AMSTRAD CPC, VARIOUS

GENERAL: RACING

» [Amstrad CPC] Before starting *Grand Prix Simulator 2*, players are asked who they want to drive as.

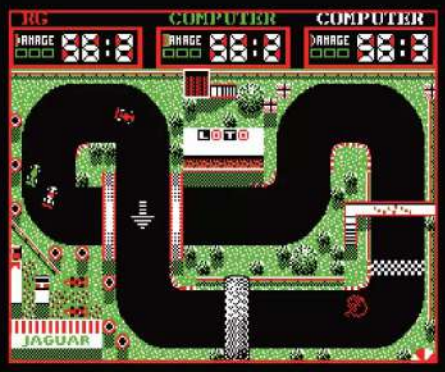
» [Amstrad CPC] *Grand Prix Simulator 2*'s pit stops show you the time you're carrying over to the next race.

Like many of the Oliver twins' collaborations with Codemasters, *Grand Prix Simulator* was a huge success. However, aspects of their top-down Amstrad racer bothered the brothers, as did the outsourced Spectrum conversion, and so they decided to make a follow-up. "The idea behind doing *Grand Prix Simulator 2* was so that we could do the Spectrum version ourselves," Philip Oliver remembers, "but *Grand Prix Simulator* also had its issues on the Amstrad, and we had always wished it could have been a bit better. We had also just done *Jet Bike Simulator*, which was already the right resolution for the Spectrum and had a nice clean codebase, so it wouldn't take too much to change its graphics."

Besides being a straightforward project, additional motivation to produce a sequel came when the Olivers went on a day out arranged by their publisher. "Because Codemasters sponsored Johnny Dumfries, we went to Silverstone and Brands Hatch," Philip notes. "He was a Formula Two driver rather than Formula One, but it did mean that we took an interest in Grand Prix. Not that an 8-bit computer could reflect it that much, but Grand Prix did feel a little bit closer to us than it had first time around."

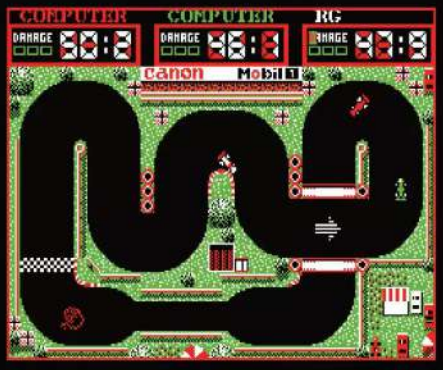
Inspired by the experience, the brothers used the Amstrad's high-resolution mode to give their follow-up much more realistic-looking cars than its predecessor. "The cars *were* pretty nicely drawn," Philip beams. "They really did look like Formula One cars, whereas in *Grand Prix Simulator* the cars were like matchboxes!"

Further improvements on *Grand Prix Simulator* followed, as the twins gave their sequel more intuitive controls and less frustrating collisions. "Every course started you pointing up or right, which meant that it was more playable," Philip points out, "because with rotating controls we found that if you started going down it felt back to front. Also, when the cars collided the game could deal with it



"THE CARS WERE PRETTY NICELY DRAWN. THEY REALLY DID LOOK LIKE FORMULA ONE CARS, WHEREAS IN GRAND PRIX SIMULATOR THE CARS WERE LIKE MATCHBOXES!"
PHILIP OLIVER

» *Grand Prix Simulator 2* was the final simulator that the Oliver twins designed for Codemasters.



» [Amstrad CPC] Unlike its predecessor, you rarely get snagged on barriers in *Grand Prix Simulator 2*.

» [Amstrad CPC] Collisions with other drivers in *Grand Prix Simulator 2* stop you dead, you don't bounce off.

better, because the computer cars replayed their data slower when there was a collision. That was a trick we got from *BMX Simulator*."

Another enhancement gave the Olivers' sequel more depth, but it was also a concession to realism that its predecessor had overlooked. "With real racing cars, you did *not* want to crash them at all, because they were expensive!" Philip laughs. "So we thought that a damage meter was another feature that we wanted to introduce. In the first one, it didn't matter how much you crashed, but if you crashed your vehicle in the second game you would slow down a bit. Although it was subtle, so we put a graphic indicator on the screen that showed your damage points."

As well as motivating prospective players of their second Grand Prix game to avoid crashing their cars, the twins also rewarded them for consistently fast race times. "It just made sense to give players a benefit if they did really well," Philip says, "and if they only just scraped through, well then they were already at a disadvantage on the next course. In real Grand Prix racing, the qualifiers decided what order the cars went in, so it did reflect on that as well."

Given its improvements over its predecessor, the Olivers expected *GPS2* to get good reviews, but oddly, it was hardly reviewed at all. "Some more reviews would've helped, because the game would have reviewed well," Philip sighs. "Maybe Codemasters forgot to send review copies out, although we'd often drive them to the reviewers ourselves. We would take them out to lunch, load the game up, show it to them, talk about it, and then we got a nice review. Maybe Codemasters thought we were doing it, and we thought that Codemasters was doing it."

Decades later, Philip feels that *Grand Prix Simulator 2* outdid not only the original game but also every other 8-bit Oliver twins racing sim, and wishes that the sequel's sales numbers had reflected this. "One of the reasons for creating *Grand Prix Simulator 2* was that we had some regrets about the original, so it was really trying to fix all of those things," Philip reviews. "The only regret is that we wish it had sold a little better, but I think we got everything out of it that we could have, and it's probably the best out of all of our 8-bit racing games."

CONVERSION CAPERS

HOW THE DIFFERENT VERSIONS LINE UP ON THE STARTING GRID

AMSTRAD CPC

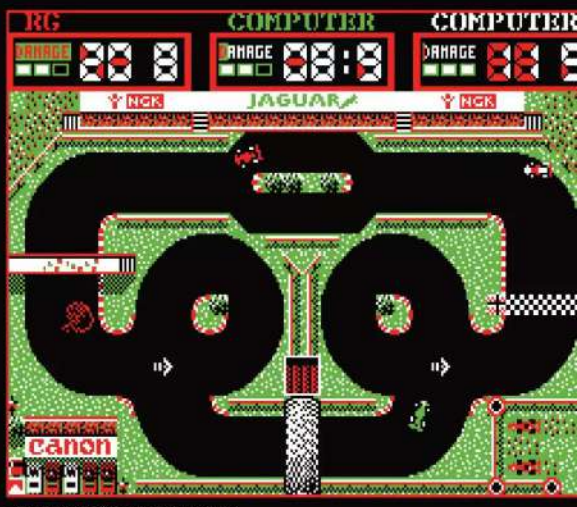
Although not quite as vibrant as its 16-colour predecessor, the CPC *Grand Prix Simulator 2* exploits the higher resolution of the system's four-colour mode to render far more detailed cars. The Amstrad sequel also introduces damage meters, racing against countdowns, banking time for subsequent courses and three-player races.

ZX SPECTRUM

The Olivers ported their CPC original to the Spectrum, so the two versions play identically. There's also nothing between their music and sound effects when you play the Spectrum version on a 128K model. The Sinclair port differs visually, however, in that its cars are all yellow and its tracks are more colourful.

C64

The handling of the C64 *GPS2*'s cars is a little more sensitive than its counterparts, but that's no bad thing. Otherwise its gameplay matches the other versions. It does sound different, though. More specifically, it has alternate tunes, its cars' engines are strangely musical and their wheels don't screech around corners.



» [Amstrad CPC] If your car takes too much damage it's game over.

THE HISTORY OF GREEN BERET

Knife? Check. Cigarettes? Check. A good supply of body bags? Check.

WORDS BY MARTYN CARROLL

WHEN IT COMES TO ONE-MAN-ARMY GAMES FEW CAN OUTDO KONAMI'S GREEN BERET, WHERE OUR HERO EFFECTIVELY DEFEATS COMMUNISM WITH JUST A KNIFE. WE LOOK BACK AT THE ORIGINAL ARCADE HIT AND THE GAMES THAT FOLLOWED IN ITS BLOODY FOOTSTEPS

"The war's not over until the last man comes home." That's the tagline to the 1984 movie *Missing In Action*, in which professional beard Chuck Norris plays a US colonel who returns to Vietnam to rescue his captured comrades. The film was inspired by the popular belief that there were still thousands of captives being held in camps in southeast Asia years after the end of the Vietnam War. This notion is also explored in the film *Uncommon Valor* (1983) and exploited in *Rambo: First Blood Part II* (1985), where the cartoon-like John Rambo uses a bazooka to bust prisoners out of bamboo cages in Cambodia.

The massive popularity of such fare in the mid-Eighties, driven by the Cold War angst and anti-communist sentiment of the time, has since being dubbed 'POW-sploitation'. And it wasn't just a Hollywood fad, as videogames also got in on the act. Konami's *Green Beret* did it better and more cynically than most. You play as a special forces operative sent deep behind enemy lines to liberate POWs. The setting isn't the hot tropical jungles seen in the movies, but rather the frozen wastes of what appear to be Siberia – a location presumably chosen due to long-standing claims that US captives were taken to Soviet labour camps. As such, standing between you and the prisoners is an army of

CONVERSION CAPERS

COMMODORE 64
Technically this version is impossible to fault. The action is fast, the scrolling is silky smooth and the Martin Galway soundtrack is great. But it's as hard as hell! It's quite remarkable that reaching the second stage is a punch-the-air moment.

ATARI 8-BIT
An odd attempt. The fullscreen scrolling is good, but the sprites are extremely basic. What ruins it, though, are the poor controls, in particular the stab action which has to be timed to perfection. With a little refinement this version could have been just average.

AMSTRAD CPC
Like several of the home versions, the CPC game utilises a 'block scroll', where the action pauses so that the screen can be shifted forward in chunks. That aside, it does possess a strong arcade vibe and the difficulty is well-balanced.

ZX SPECTRUM
It's easy to see why this version is held in such high regard. While monochrome, the sprites are detailed and well-animated, and the scrolling is really smooth for a Speccy game. All of the features from the coin-op are replicated, bar the in-game music.

THOMSON MO5
This version for the French micro is obviously based on the Spectrum game, but it runs at around 50% of the speed. Add this to the block scrolling routine and you're left with a game that's so sluggish that it's borderline impossible to play.

COMMODORE 16
Should you manage to complete this buggy, barely functioning bomb of a game you are rewarded with an otherwise blank screen with the words 'THE END' displayed in the system font. Thanks for that, anonymous programmer, you're a real trooper.

overcoat-wearing Russians who want to stab, shoot and jump-kick you to death.

Taking its cue from the *Rambo* movies, your main weapon is a 14-inch survival knife (the flyer art for the game features a weapon that is clearly based on the *Rambo* knife). And you need to stab-stab-stab, as the game plays like a manic version of *Kung-Fu Master*, with enemies rushing you from either side, as well as from platforms above and below you. To balance the difficulty you can collect flamethrowers, rocket launchers and grenades, and use them to punch a hole in the enemy attack. These weapons have limited shots however, so you are advised to save them for the end-of-stage encounters where you'll find yourself thrown to the dogs (quite literally in the case of the second stage).

The action takes place across four areas: Missile Base, Harbour, Bridge and Camp. If you somehow manage to reach the end and rescue the prisoners, you'll be told to 'proceed to next camp' and the game will start over, albeit with the difficulty level increased. Superhuman players can continue looping the game, although the score tops out at 999,999, typically around the fourth loop.

Green Beret was violent and exploitative for the time, which pretty much guaranteed it strong earnings when it debuted in arcades in October 1985. But the fact that it was also a damned good game ensured that it would always be more than an 'of its time' novelty. Even the US version – which was cannily renamed *Rush'n Attack* and included ▶

» [Arcade] Probably the game's most satisfying moment: taking out a whole line of onrushing enemies with a flamethrower.

» Ocean released its Konami conversions on the Imagine label to address Konami's concerns that Ocean's name might overshadow its own.

"I BASICALLY COPIED WHAT I SAW RUNNING... I HAD NO SOURCE CODE OR ART"
JAMES HIGGINS

» James Higgins converted several arcade games to the Thomson range, including *Green Beret*. He's now based in the US, working as a developer for Mass Media Games.

» [Arcade] Certain enemy soldiers drop special weapons which you can use against their comrades.

WE PUT EVERY HOME VERSION ON TRIAL

BBC MICRO
The gaudy graphics are the least of this version's problems. It's just too fast and too difficult to be enjoyable, with enemies swarming towards you en masse. It lacks balance too, with evil jumping soldiers appearing right from the get-go.

MSX
When you consider some of the brilliant Konami arcade conversions that were released for the MSX, it's almost heartbreaking to play this effort. The controls are unresponsive, but it's the choppy scrolling that kills it. A real disappointment.

PC
The graphics are fine (at least in the EGA version) and the scrolling is adequate. What makes this version stand out are the additions: there are three difficulty settings to pick from and it includes support for two-player co-operative play.

NES
Released in 1987, this console version is head and shoulders above all the other conversions that came before it. The graphics and gameplay are top-notch, and as mentioned elsewhere in this feature, the enhancements make it shine even brighter.

GBA
This is another wonderfully generous version for a Nintendo system that's the highlight of the 2002 collection *Konami Arcade Advanced*. Play it, enjoy it, then enter the Konami code to expand it with the addition of two exclusive stages.

NINTENDO DS
The game was one of 15 titles that made up the *Konami Arcade Classics* collection released in 2007. Unlike the earlier GBA version, this is a straight conversion of the coin-op. It does include a bunch of configurable options you can tinker with.

XBOX 360
This 2007 Xbox Live Arcade release is one of those clever conversions that lets you toggle between original and enhanced visuals on the fly. The fact that fans will very likely stick with the original coin-op graphics probably speaks for itself.

A BERET DIFFERENT GAME

THE NES VERSION FOUGHT ITS OWN WAR

Released 18 months after the coin-op, the NES conversion of *Green Beret* expands on the original rather than just replicating it. The main additions are two extra stages: one set in an airport and another in the enemy's stronghold where you have to destroy its 'secret weapon' in order to 'save the world'. That's right – this version steers clear of the whole POW rescue plot, presumably because it wasn't a good fit for the 'Family Computer' at the time. There is plenty of good ol' stabbing action, though. In fact, there is 100% more as the game supports co-op play, with soldier red joining soldier blue in battle. Some changes are also made to the special weapons. The flamethrower is replaced by a rifle, and an invincibility pick-up has been added. The original Japanese version (which was a Disk System release) includes one further, rather neat addition: some stages feature underground tunnels that can be accessed via ladders hidden under landmines.

» [NES] The exclusive airport stage ends with a fight against a trio of deadly jetpack dudes.

» [NES] The tunnel screens were removed when the game was ported from disk to cartridge, presumably due to limited ROM space.

the communist red star symbol on many of the background graphics – couldn't change that.

The game was also a hit on home systems. Ocean Software had inked an eight-game deal with Konami in 1985 and *Green Beret* was one of the titles released for multiple computer formats on the firm's Imagine label. All versions suffer from control issues when using a joystick as the coin-op uses two fire buttons, for stab and shoot. The solution is to assign the shoot button to a key, which requires players to adopt the old 'tapping the keyboard with your foot' trick. The quality of the conversions is far from consistent, with the best ones appearing on the Commodore 64 and Spectrum, and the worst inflicting themselves on the Commodore 16 and MSX. Konami actually released Ocean's MSX version on cartridge, but would later make amends by developing its own infinitely superior NES release, which includes two extra stages and a bunch of other enhancements.

"A MONTH INTO THE DEVELOPMENT WE WERE TOLD THAT WE WEREN'T ALLOWED TO USE THE NAME AS KONAMI HAD ASKED FOR TOO MUCH MONEY"
MARK R JONES

» Friend of **Retro Gamer** Mark R Jones designed the graphics for *The Vindicator*, the game that was initially going to be *Green Beret II* before Konami kiboshed it.

The classy Spectrum version was developed in-house at Ocean by Jonathan 'Joffa' Smith. It was his third Konami arcade game conversion, following *Hyper Sports* and *Mikie*, and he was responsible for everything – code, graphics, sound and quirky little touches like the 'Stab to start' message. Joffa passed in 2010 but he previously shared details on his long-deleted personal website.

"It took me about three months to develop," he wrote. "I had the arcade machine in my room in order to copy the game more accurately, although it was easier to use a video tape of it being played." He revealed that the main challenge was cramming everything into the available RAM. "The enemy soldier graphics had to share generic sprite masks in order to save some precious memory. I completely filled the memory with the code, graphics and data so there wasn't any room for menus or music. The controls menu only appeared once after the program had loaded, as it had to reside in a buffer that was overwritten once the game started. Most of the specialist computer magazines slated it, in part due to the lack of 'features'. No music, high score table and also the inability to change control methods without having to reload the whole thing. There is an argument that these features are just novelty items anyway and a game really doesn't need them."

We'd agree with the argument, but not his memory that the game was slated. Some mags did mention the lack of music, but overall his version scooped top marks across the board – 88% from *Crash*, 5/5 from *Sinclair User* and 9/10 from *Your Sinclair*. Joffa's game also served as the template for the Thomson MO5 version which was developed by James Higgins. It was the first of several Ocean games James converted to the popular French computer on a freelance basis. "I basically copied what I saw running on the Spectrum," he recalls. "I eyeballed it. I had no source code or art. I didn't even get given a copy of the game and had to borrow one from a friend. I basically played it through and tried to recreate what had been done much better by Joffa, whom I never actually met."

» [Arcade] Pesky paratroopers drop in to say hello on the second stage. A well-placed rocket is the appropriate response.

» [Arcade] You can jump the landmines, but it's also possible to blow them up with a special weapon.

The Thomson version looks like Joffa's game but it plays much slower. "I had no idea what I was doing," James admits, laughing. "I don't remember it being that slow but it doesn't surprise me. I was literally straight out of secondary school. I was pretty green and the Thomson was seriously underpowered. It had a 1MHz 6809 with a frame buffer that was twice the size of a Spectrum's. Plus, the manuals were all in French and I didn't speak a word of the language! That said, I'm sure it could have been done better in more experienced hands. I was just stunned to have been given the chance to code a game – and get paid."

***Green Beret* proved to be a notable licence for Ocean.** Following its initial release, the game was included on two popular collections – Konami's *Arcade Classics* and *Live Ammo* – and later reissued on the Hit Squad budget label. That was not all: in mid-1988 previews for a surprise new Ocean game called '*Vindicator: Green Beret II*' appeared in the press.

This proposed sequel has an interesting history. Ocean's Simon Butler came up with the name '*Vindicator*' and it was originally designed as a *Double Dragon* rip-off. "Ocean was pissed that it didn't get the *Double Dragon* licence," reveals Mark R Jones, who was the game's graphic artist. "The idea was to rip it off for *Vindicator*." This is evidenced in the early design docs which outline the beat-'em-up gameplay and feature direct references to *Double Dragon*. Furthermore, the main character was to be a green beret who could use a knife and a three-shot flamethrower. Sound familiar? Mark explains: "The bosses at Ocean had worked out that games that weren't officially attached to a film or arcade game didn't sell half as well as those that were. So the '*Green Beret II*' subtitle was added and Bob Wakelin produced the cover artwork for it. Then a month or so into the development, we were told that we weren't allowed to use the name as Konami had asked for too much money."

[Arcade] You finally locate the caged captives at the end of the fourth stage, at which point the enemy goes into overdrive.

The subtitle was dropped, but it made little sense anyway as the game had evolved from a mash-up of *Double Dragon* and *Green Beret* into an ambitious multigame affair in which players were tasked with saving mankind from aliens. It was released in late 1988 as simply *The Vindicator*.

The true sequel to *Green Beret* would arrive in 1989, courtesy of Konami. Titled *MIA: Missing In Action*, this arcade game wasn't actually marketed as a sequel, but it's so close to the original that it's more than just a spiritual successor. The action is relocated to southeast Asia, so this time you're dropped into a jungle setting featuring bamboo ladders, hanging bridges and a network of underground tunnels. There are a couple of pleasing tweaks to the gameplay: special weapons are stacked, rather than replaced, when you grab a new one, and you can now crawl, which is useful for making ground on gun and mortar placements. Co-op play is also included, as it is in select

[Arcade] While they're not as flashy as the other special weapons, grenades are great for clearing a path.

[Arcade] At the end of stage three you find yourself surrounded by grenade-flinging gyrocopter pilots.

Bob Wakelin's original *Vindicator* artwork featured the *Green Beret II* subtitle. It was hastily covered up with screenshots for the print ads, before being removed entirely.

[Arcade] Forget snakes and spiders: the jungles in *MIA* are crawling with knife-wielding enemies.

[ZX Spectrum] Aliens aside, the third stage from *The Vindicator* does echo back to *Green Beret*.

[Arcade] The final stage of *MIA* sees you guiding the captives to the awaiting rescue chopper.

home versions of the original game, so you can carve-'em-up alongside a comrade. But overall, the basic gameplay is unchanged.

As you'd expect, the graphics and overall performance of the game is improved. Parallax scrolling has been added and the explosions and other effects are beefed up. But boy oh boy, the sprite animation is awful, with all characters performing a comical high knee strut! Silly walks aside, *MIA* is good for a few credits of play, and it features a doozy of a final stage where you have to guide the POWs to 'da choppa' whilst fending off constant enemy attacks. Perhaps tellingly, the game wasn't converted to a single home system, although it was one of the titles included in the short-lived Microsoft Game Room.

Meanwhile, ports of *Green Beret* would continue. In 2002 it was included on *Konami Arcade*

"I GREW UP PLAYING GREEN BERET ON MY ATARI, SO I WAS REALLY EXCITED TO WORK ON THE REMAKE"
VILIAM KORBEL

Viliam Korbel was the lead designer on *Rush'n Attack: Ex-Patriot* for Vatra Games. In his current role he's a senior producer at 2K Czech.

COLD WAR CLASSICS

MISSILE COMMAND

DEVELOPER: ATARI
YEAR: 1980

Perhaps the most simple yet effective game to reflect the Cold War anxieties of the era. Enemy missiles rain down on your cities and you have to intercept them with your own defensive ordinance. Failing to do so doesn't result in 'Game Over' but rather 'The End'. Gulp.

RAID OVER MOSCOW

DEVELOPER: ACCESS
YEAR: 1984

The title of Bruce Carver's *Beach-Head* follow-up says it all really. The Soviets have fired nuclear missiles towards the US and you have to initiate a counterattack on Russian soil. The game caused some controversy at the time and was later reissued as simply '*Raid*'.

THEATRE EUROPE

DEVELOPER: PSS
YEAR: 1985

This turn-based strategy game is far more cerebral – and chilling – than *Raid Over Moscow*. It imagines an escalating war between NATO and the Warsaw Pact. Memorably, players had to call a dedicated phone number to receive the code to authorise a nuclear missile launch.

Advanced for the Game Boy Advance. This six-game collection also includes *Scramble*, *Frogger* and *Yie Ar Kung-Fu*, and they are all well-optimised for the handheld's small screen. Link-up play was also added, which means you could play *Green Beret* in co-op mode. Better still, an 'enhanced' version of each title can be unlocked by entering the famous Konami Code. The graphics are the same, but new content has been added. In the case of *Green Beret*, this meant replicating the NES version and adding two new stages. They are not the same as the NES stages however, with one set in a train yard and another in an airport hanger. Both stages are added to the end of the game, and you're given two extra lives to help you try and reach them.

Green Beret was later included on *Konami Arcade Classics* for the Nintendo DS, but it's just an arcade port with zero embellishments. The coin-op was also released as an Xbox Live Arcade title in 2007, featuring enhanced graphics, remixed tunes, online co-op play and 12 achievements to earn. Curiously this version was released as *Rush'n Attack* in all regions, not just the US.

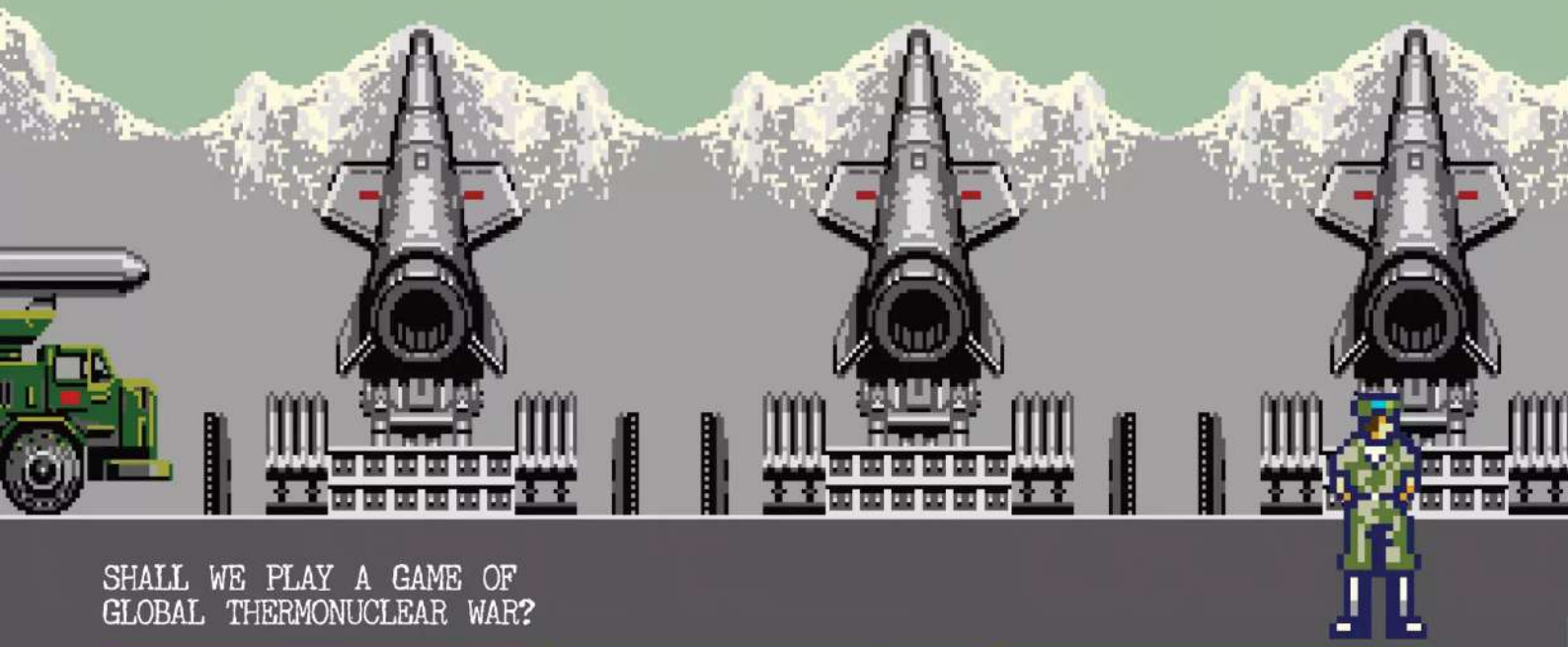
It was the same story for the most recent game in the series, *Rush'n Attack: Ex-Patriot*, which was released in 2011 on Xbox 360 and PS3. This modern take on the original casts you as a CIA operative tasked with rescuing an intelligence agent from a Siberian prison complex. *Ex-Patriot* was created by Vatra Games, a Czech-based studio that's best known for developing *Silent Hill: Downpour*. "We had a chance to work on *Ex-Patriot* thanks to *Silent Hill*," explains lead designer Viliam Korbel. "Konami wanted to move the development of *Silent Hill* from a Japanese studio to a western studio, and because it wanted to create a remake of *Green Beret* at the same time, it decided to develop both games with Vatra."

Viliam reveals that most of the studio's resources were directed at *Silent Hill*. "The *Ex-Patriot* team was very small. I was the only full-time designer so I had to cover everything from level design and gameplay elements to the scripting of missions." Luckily Viliam was familiar with the property. "I grew up playing the original version of *Green Beret* on my Atari 800 XE, so I was really excited to work on the remake. I thought at the beginning that it would be a true remaster of the original, but Konami's plan was a little different. The original game really hooked you as a player because of the action and arcade style, and we wanted to keep that simplicity. We also wanted to go a bit deeper and add some new elements which would make gameplay a little bit more complex."

To this end the game introduced combo attacks and stealth tactics, while levels were now nonlinear. Reactions to the game varied wildly. "The reviews ranged from 2/10 to 8/10," reveals Viliam. "With a remake, it's tricky to find a balance between elements which should remain for fans of the original and elements designed to make the game more accessible for a new audience. I think the constant balancing between old and new was the problem and the main source of controversy about the gameplay. But I still think that it's worth playing."

[Xbox 360] *Rush'n Attack: Ex-Patriot* attempted to bring the series up to date while retaining the original's spirit. It kind of worked.

It's close to a decade since *Ex-Patriot* was released and the series is now almost certainly dead. This has nothing to do with the outdated Cold War scenario of course, but perhaps concerns of releasing a game today which involves violently knifing people to death. That makes sense, and it's fine, as both *Ex-Patriot* and *MIA* have shown that the 1985 original is the definite version anyway.



SHALL WE PLAY A GAME OF GLOBAL THERMONUCLEAR WAR?

SDI

DEVELOPER: SEGA
YEAR: 1987

Sega took the concept of the US's Strategic Defence Initiative and used it as the basis for a futuristic space shooter, where you have to zap enemy missiles as they whiz through orbit. The attract sequence, showing a missile striking New York City, grounds it somewhat.

THE HUNT FOR RED OCTOBER

DEVELOPER: OXFORD DIGITAL
YEAR: 1987

Based on the 1984 novel by Tom Clancy, this simulation sees you trying to helm the titular nuclear sub to the US while avoiding attacks from both Soviet and NATO forces. Very technical and challenging, this was quite different to the later games based on the movie.

C&C: RED ALERT

DEVELOPER: WESTWOOD
YEAR: 1996

The fantastic prequel to the original *Command & Conquer* imagines a fictionalised battle between the two playable factions: Allies and Soviets. It was superseded by later games in the series, but at the time of release this was the best real-time strategy game available.

Psycho Pinball

» **PLATFORM:** MEGA DRIVE » **RELEASED:** 1994 » **DEVELOPER:** CODEMASTERS

You'd played a lot of pinball games in the arcades and even enjoyed some on your trusty Sega Mega Drive. You loved the mini tables of *Devil Crash* and even relished the boss battles found in *Dino Land*, that import Mega Drive game you picked up. Hell, you even managed to have some fun with *Crüe Ball*, and even gleaned enjoyment from *Sonic Spinball*, but something was missing and you couldn't quite tell what it was. It turns out *Psycho Pinball* was absent from your life, and while it wasn't quite a match for *Devil Crash*, its endless charm and sheer inventiveness easily won you over. Aside from multiple tables and cool LED-like displays, the big draw of *Psycho Pinball* was its entertaining arcade-style minigames that tasked Psycho, a cute armadillo, with a variety of fun objectives, from navigating a walkway in space to protecting the inside of a huge whale. The best one, however, was 'Runaway Train', which saw Psycho frantically dash across the top of a speeding train, which only got trickier the more times you completed it.

BIO

While it also appeared on MS-DOS, we've always mentally linked *Psycho Pinball* to the Mega Drive. Released as a PAL exclusive in 1994 (a release for North America fell through) *Psycho Pinball* caused quite a splash on Sega's console due to its multiple tables, entertaining LED panel games and those minigames, which were tricky to unlock and even harder to master. While it didn't use Codemasters' J-Cart design – which had appeared in games like *Micro Machines 96* and *Pete Sampras Tennis* – it did cater for up to four players, meaning it was the perfect go-to game whenever you had a bunch of mates over.

MORE CLASSIC PSYCHO PINBALL MOMENTS

A Grim End

For all its colourful visuals and cheery music, *Psycho Pinball* gets surprisingly dark at times. Take 'The Abyss' table for example. You're having a whale of a time, lighting markers, racking up huge points and enjoying the minigames and then you lose a life. Only here it's literal, as the LED display shows Psycho drowning, his last breaths signified by rising air bubbles. Grim.

Multiple Tables

Psycho Pinball has three core tables: 'Wild West', 'Trick Or Treat' and 'The Abyss'. Finally, there's a fourth table called 'Psycho', which is an impressive beast and the only table to feature a traditional spring ball launcher. Additionally, it features three tents which take you to the other tables once you've managed to light them up.

Minigames Galore

While the main draw of *Psycho Pinball* is arguably its arcade-styled minigames, its LED offerings are equally entertaining and range from simple puzzles that include guessing which of three cups is hiding your ball, shooting down multiple ghosts with the A B and C buttons, to playing blackjack or simply catching as many fish as possible.

Balls, Balls, Balls

Any pinball game worth its salt has a multiball option hidden in its table design and the ones in *Psycho Pinball* are no exception. If we had to choose our favourite it's probably the Halloween-themed 'Trick Or Treat' as it's relatively easy to activate, requiring you to simply slam three balls into a nearby haunted tree.

THE MYSTERY OF ST BRIDE'S

How did an old house offering a 1920s girls' boarding school experience become an outlet for some of the most creatively enterprising text adventures of the 8-bit era? Welcome to St Bride's...

WORDS BY OWEN WILLIAMS

"Today you've a mystery to solve. Last night you arrived at St Bride's School. The mistresses and girls really believe they are in an old style boarding school. You even wonder if you're not a bit mad to think you're from the Eighties. You want to find out what's going on while you still can... Your adventure starts here..."

So begins *The Secret Of St Bride's*, the inaugural text adventure from the programming hotbed at St Bride's School: a very peculiar institution operating out of a rackety old house in Burtonport, County Donegal. The setup for the game echoed a carefully constructed and maintained aura of mystery around the place itself, advertised in the early Eighties broadsheets as a place where women could go to relive a *St Trinians*-style boarding school childhood they'd never actually experienced. "St Bride's offers a standard classical curriculum," ran the prospectus, "the cardinal subjects being Mathematics, Elementary Latin, Grammar and Literature. The day begins with the rising bell at half-past seven... Our girls receive the healthy benefit of lively sea air and fresh open countryside, and in the matter of sunshine, so vital to the health of growing children, we are singularly well-favoured." The school also boasted facilities such as "a modern gramophone which may sometimes be used by an unsupervised group of girls providing that great care is taken to avoid overwinding".

ST. O'TRINIANS!
That's what one paper called St. Bride's - the famous school where grown-up girls are transformed into schoolgirls. The others weren't silent either:
'A school for scandal?' asked the Telegraph.
'All very pukkah,' assured BBC TV News.
'Bizarre!' shrieked the Sun.
Now you can find out for yourself as you guide Trixie Trinian through the classrooms, corridors and secret places of the strangest school ever - to uncover
THE SECRET OF ST. BRIDE'S
A magical drama in over 100 scenes — not so much a programme more a way of life.
WHIZZ ME — THE SECRET OF ST. BRIDE'S AT £5.95 each (POST FREE)
Quantity
NAME
ADDRESS
From ST. BRIDE'S SCHOOL, BURTONPORT, CO. DUNEGAL, IRELAND
Tel: BURTONPORT 30
SPECTRUM 48K COMMODORE 64

A mail order advert for *The Secret Of St Bride's*.

"We used, all the time, to see a lady around Burtonport wearing very old-fashioned clothes and a little white bonnet," recalls Catherine McGlynn of Irish tourism website *Holiday Donegal*. "She drove a very old style black car. I wonder if she was the maid of the house?" She was not. Two such women were actually running the whole show at St Bride's: using pseudonyms, never seen out of Edwardian costume and advocating a return to the values of that era. Among their many side-projects was a campaign to abolish the metric system – motto 'Don't Give An Inch' – of which Sir Patrick Moore was a patron. Anachronistically, they published computer games, but this, says Clem Chambers, former head of their occasional publisher CRL (and now a financial pundit and author), was some way from being the weirdest thing about them. "It was certainly a strange setup," he chuckles, "but these were the days when you could go on holiday to Colditz and play at escaping, and all that wish-fulfilment kind of stuff. That they operated a holiday school and published games was comparatively not odd..."

Trying to investigate St Bride's is both an intriguing and frustrating experience. The people that know the answers remain determinedly secretive, while the people that are willing to talk tend to be fascinated but mystified. Each step along the timeline simply yields further questions. Even the journalists that visited the school during its 8-bit heyday were none the wiser when they left.

The facts, as far as they can be ascertained, start with the house itself, still standing and commonly known in Burtonport as the Atlantis House, after the Atlantis Foundation, who inhabited it before St Bride's. Initially a commune of 'free thinkers', it became infamous for its use of primal scream therapy: roaring out one's inner turmoil to attain a purer state of consciousness. Its members were quickly dubbed the 'Screamers' by the Burtonport

You are at the door of Room 64.
The lamp is flickering. The
battery is running out.
Ready when you are...
>OPEN DOOR
An ELEPHANT tumbers out of the
door toward you. In a moment
you will be crushed.
The lamp is flickering. The
battery is running out.
Ready when you are...

» [ZX Spectrum] An elephant proved to be the nemesis of the St Bride's schoolgirls.

front cover.
I considered my next move...
>READ BLACK BOOK
The book was not written in
English. Odd geometrical figures
dotted the text. I could make
little of it. Pasted in were
some coloured anatomical
drawings and a map of the
Whitechapel area. Over the map
was superimposed a complex
esoteric diagram in red ink.
"August 31st: Mary Ann Nichols"
suddenly leapt up at me from the
page. It was part of a list of
names and dates. Below it was
the date "September 8th" - no
name. "No name yet!" said some
inner voice.

» [ZX Spectrum] *Jack The Ripper* was a violent departure from the typical whimsy found in the St Bride's games.

» [ZX Spectrum] *The Snow Queen* was set to be part of a sprawling series of interactive books based on popular fiction, however further instalments failed to materialise.

I am in a little bedroom. It is my grandmother's. There is her wardrobe, and her washstand over there. A door is in the East wall.
And I can see:-
my grandmother sleeping peacefully in her bed
What shall I do now?
>KISS GRANDMOTHER
Oh yes. I could never have left without that.
Very well, I have done that.

THE SNOW QUEEN
IN WHICH THE PLAYER MUST HELP GERDA SAVE KAY FROM THE SNOW QUEEN
FOR ABRIDGED STORY AND FULL INSTRUCTIONS SEE REVERSE OF THIS COVER
THE SNOW QUEEN
THE SNOW QUEEN
HANS CHRISTIAN ANDERSEN
Adventure game by
ST BRIDE'S
MOSAIC

» *The Snow Queen* is one of the lesser known titles from St Bride's.

locals, and subsequently relocated offshore to the island of Inishfree to escape increasing press intrusion. Legend had it, with the right weather conditions, you could stand on the Burtonport harbour and hear banshee-like wailing coming across the water.

This was in the Seventies, and in the early Eighties, the vacant house was taken over by an all-female community inspired by a 'sapphically inclined' student club founded at Oxford's Lady Margaret Hall. Its founding members had gradually created a complex philosophy and fantasy world called 'Aristasia', which posited two female 'sexes' – dominant brunettes and submissive blondes – and encouraged retreat from the modern world. They referred to the swinging Sixties, deemed to be the beginning of civilisation's end, as 'The Eclipse', while the real world outside Aristasia was designated 'The Pit'.

With the Atlantis Commune departed, the Aristasian women rechristened the house St Bride's (after the fifth-century Irish abbess and miracle-worker). Candida Crewe, who visited for the *Telegraph* magazine, described it as like stepping into a Gothic novel where "a single candle flickered behind a lace curtain, guests were invited into a parlour heated only by a feeble coal fire, and the mistress of the house greeted her guests wearing a long black dress and white lace collar".

This mistress is now best known by the name Marianne Martindale, but she was then calling herself Marianne Scarlett, and has also at various times gone

"I DIDN'T HAVE ANY KNOWLEDGE OF COMPUTERS [...] BUT I FOUND THEY WERE WONDERFUL, THEY WERE MAGICAL"
MARIANNE MARTINDALE

» [ZX Spectrum] *The Secret Of St Bride's* ensured that the institute attracted plenty of media coverage, largely due to the ironic nature of its development.

» [PC] *Second Life* is where the values of St Bride's and Marianne Martindale continued...

» [PC] ...however, these days the virtual space has been effectively abandoned.

by the monikers Miss Partridge, Miss Traill, Mari De Colwyn, Brighe Dachcolwyn and Clare Tyrell. "One's real name is the name one is using at the time," was the explanation given to *Sinclair User*'s Bill Scolding.

Bill and *Crash*'s John Minson (both of whom spoke to us but remember nothing except being baffled), along with three other cohorts from the Eighties computing press, took the opportunity for a visit to the school when they were called to Ireland for a junket publicising the gimmicky *Surf Champ*: the game that came with a plastic surfboard that fitted over the ZX Spectrum's keyboard. John wrote it up for *Crash* as a kind of Hunter S Thompson road trip: "We were just outside Rossnowlagh on the Atlantic coast when the Guinness began to take hold..."

No amount of Guinness, it seemed, was enough to cushion the culture shock. After a tortuous journey that hadn't looked tricky on the map, he wondered if he hadn't fallen through a time warp, arriving at a place that didn't even have electric lights. Incumbent computer programmers seemed unlikely.

The story given to the hacks was of the arrival at the school of Priscilla Langridge (her real name at the time), who had responded to one of the newspaper advertisements offering idiosyncratic escape from normality for £120 a week, and had bought into the fantasy enough that she'd stayed on. According to the – rather unlikely – Marianne Martindale narrative, Priscilla had for some reason brought a Commodore 64 with her on her Edwardian retreat, and found the school's only plug socket. Marianne was initially sceptical about the computer, Priscilla told John Minson, but "she realised that unlike television, which

I am in a soft fur-lined cavern. There are lots of teddy bears here having a picnic. They look at me crossly. They don't like being interrupted when they are picnicking. I suppose they think they will be picked up and cuddled when they are only wanting to stuff themselves.
More...

» [ZX Spectrum] *Dogboy* is an obscure St Bride's game, released in 1992 alongside *White Feather Cloak* and *Silverwolf*.

she thinks is passive and mind-rotting, computer games call for concentration and commitment".

"I didn't have any knowledge of computers," Marianne elaborated to Bill Scolding. "My experience was in thinking backwards. But I found they were wonderful, they were magical. I'm a great fan of racing car games."

A wheeze enjoyed by the St Bride's girls on their afternoon rambles, in which they "noticed odd things, pretended they were clues, and worked out the connections between them" became the basis of *The Secret Of St Bride's*. Priscilla wrote it using the adventure programming software Quill, beginning on her C64 and later migrating to the Speccy. Already apparently a writer before she came to St Bride's, she told John she had found the economical two-word inputs of the text adventure format creatively liberating. "People make a fetish of excess sophistication," she mused.

> "IT WAS CERTAINLY A STRANGE SETUP BUT THESE WERE THE DAYS WHEN YOU COULD GO ON HOLIDAY TO COLDITZ AND PLAY AT ESCAPING"
> CLEM CHAMBERS

Ultimately, St Bride's was responsible for eight completed games, but the release history is chequered, and a handful written in the Eighties seem not to have surfaced until the early Nineties when they were picked up by re-release houses GI Games and Zenobi. *The Secret Of St Bride's* introduced both the school and heroine Trixie Trinian, and was a mail-order affair from the school itself: advertised with lascivious images of a stockinged, high-heeled, *St Trinian's*-type schoolgirl.

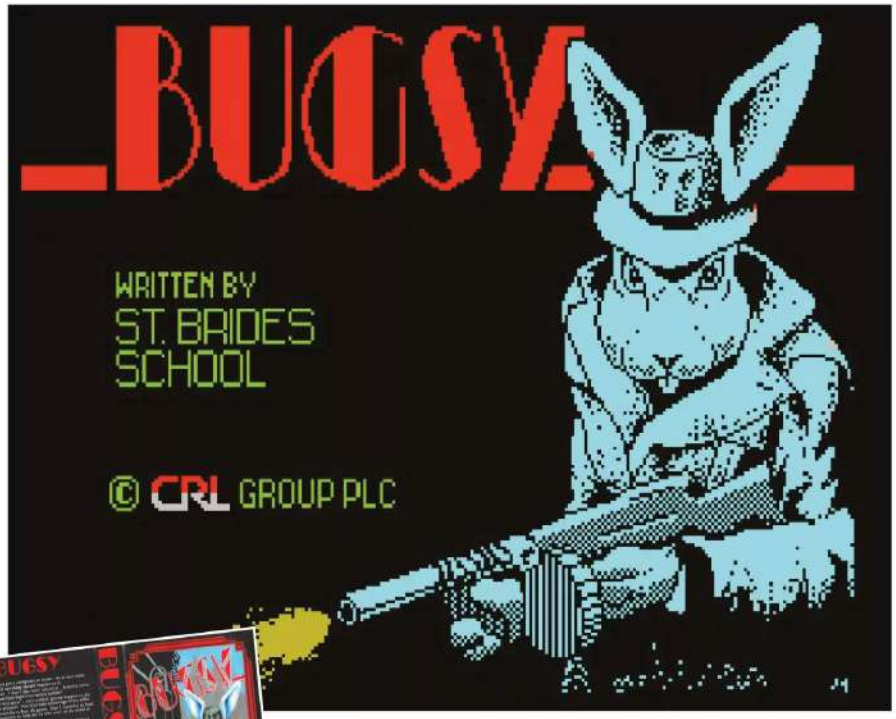
The Secret Of St Bride's sees the player (as Trixie) waking one morning in 1985 (in "a holiday centre in Ireland where you experience old-fashioned storybook schoolgirl life") to discover that all evidence points to the year actually being 1927. Initial escapades include donning a gown to get past some stern mistresses; and of course, judiciously using a mouse to frighten off a charging elephant. Outside the school you encounter both village life (the local 'peeler' will arrest you at the drop of a gymslip) and some fantasy creatures, before you head for town, marry a maharaja and track down the mysterious authoress Ms Merlin who has the power to send you back to your own time. There's also an epilogue with a magic amulet, should you choose to indulge.

It is, obviously, all a jolly silly lark, but it sows the seeds of most of the subsequent St Bride's adventures: humour, fantasy and a strong emphasis on wilfully independent female characters: although Marianne Martindale and Priscilla Langridge always insisted at the time that they weren't writing games just for girls. Trixie reappeared in *The Very Big Cave Adventure* (spoofing Will Crowther and Don Woods'

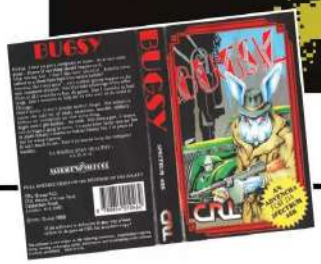
"Excellent! To reach the island, tap the floor here softly."
TAP FLOOR SOFTLY
Nothing seems to happen.
"Ha-ha! Tested you!" chortles the head.

» [ZX Spectrum] The attention to detail in regards to characters was unsurpassed for its time.

» It's been suggested that there were various women playing the role of Miss Martindale...



» [ZX Spectrum] A talking 1920s rabbit called Bugsy Maroon. It's not exactly subtle, but it's deservedly one the most memorable text adventures from of St Bride's.



VIDEO NASTIES

DON'T FEED THE TROLL

■ *Jack The Ripper* was, notoriously, the first computer game ever to be granted an 18 certificate by the BBFC. It seems incredible now that gruesome text and 8-bit stills could have caused controversy, but *Jack The Ripper* was the *GTA* of its day. CRL's Clem Chambers insisted with a straight face that certification for 'adult' games was a moral responsibility. Now, he admits cheerfully, "I was trolling!

"I saw a copy of *The Sun* that had a story about the 'Video Nasties' controversy," he laughs, "and I thought, 'Aha! Nobody's ever put a film certificate on a game! If I do it first I'll get loads of coverage!'" It worked, but also backfired. "It sold out on day one but then the middlemen refused to restock it," he laments. "Our distributor was upset about it being a success and didn't want it to sell. It was basically strangled in distribution."

» *Jack The Ripper* earning an 18 rating is about as ludicrous as certificating library books.

THE HORROR, THE HORROR

THE GHOULISH CLASSICS THAT PAVED THE WAY FOR A RIPPER

Jack The Ripper from St Bride's formed part of a series of horror text adventures published by CRL. "It was their idea; they came to us with it," recalls CRL head honcho Clem Chambers. "They said, 'We're Victorians, we'd like to do it!' So we said, 'Yeah, course you can!'"

They were, however, entering territory that had previously been inhabited by a sole occupant. Rod Pike had written literary Gothic horror games for CRL based on *Dracula*, *Frankenstein* and *The Wolfman* (he also composed *Dr Jekyll And Mr Hyde* for short-lived publisher The Essential Myth). An industrial engineer by profession, he did his adventure programming in the evenings. "I don't like humorous games," he told *C&VG*'s Keith Campbell. "I prefer to be scared to death in the comfort of my living room. My aim is to scare the pants off the player."

His personal text adventure ethos was that every location should have a definite purpose. Some of his puzzles could be infuriatingly obscure, however: a locked door in the opening portion of *Frankenstein*, for example, can only be opened by your father, who only arrives if you sit in an armchair and wait for him.

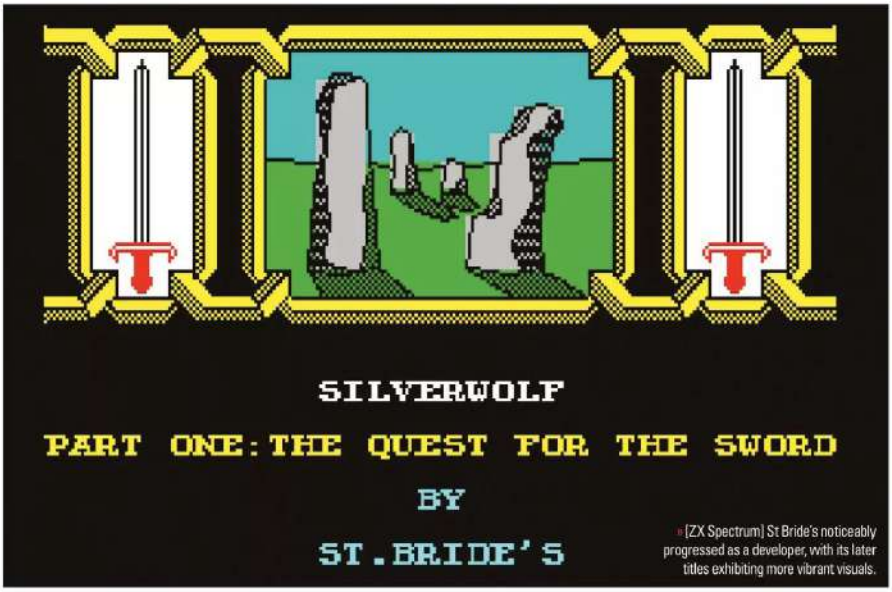
Keith's interviews seems to have been Rod's only published one, and he remains elusive. "People have looked for him and haven't found him," Clem

confirms. So who was he? "Good question," Clem continues. "He was a nice guy who liked to write. I felt that he was a bit like a UK Stephen King: he was very softly spoken and pleasant, but you could imagine he might write horror."

Wolfman was Rod Pike's final game, leaving the way clear for St Bride's to stride into Ripperdom. "I think he wanted to write novels," Clem muses. "I'm sure his books would have been really good but I don't think he was ever published. He was writing in a void, effectively, with us as his bridge to his audience, and he was very happy for any affirmation. He would've loved this retro revival."

» Rod Pike's last game was the incredibly evocative *Wolfman*, a fitting swan song.

» [ZX Spectrum] They might seem antiquated, but Rod's horror titles were truly chilling.



» [ZX Spectrum] St Bride's noticeably progressed as a developer, with its later titles exhibiting more vibrant visuals.

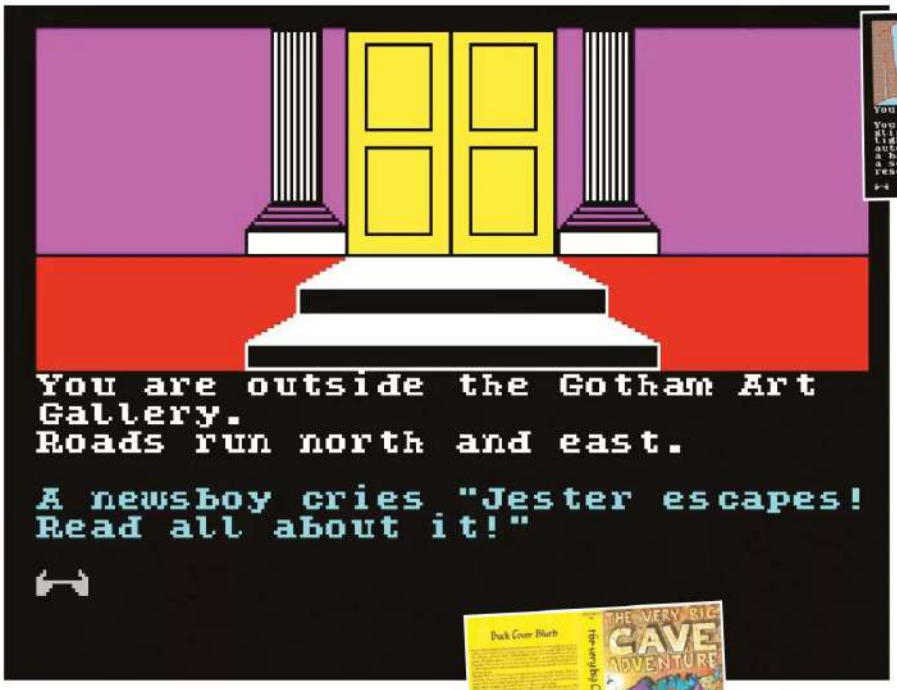
» Miss Martindale welcoming girls to St Bride's. Not pictured: Commodore 64.

original text epic *Colossal Cave Adventure*), this time as your guide and narrator. She was, it turned out fond of terrible puns (the bull that believes your outrageous lie is a 'gully bull'; when you blow it up it's 'a bomb in a bull') and of commenting on the proceedings themselves. "The description of this room is very misleading," she apologises at one point. "I'd complain if I were you."

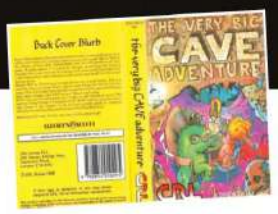
Also wilfully independent – to the extent that she sometimes takes control of the game away from the player – is Gerda, heroine of *The Snow Queen*: based on the Hans Christian Anderson fairytale and intended as the first in a series of 'interactive books'. And there was another modern-day schoolgirl – Petra Stone – at the centre of *Silverwolf*, in which the player can switch between four female characters. An accompanying comic was proposed and designed, but seems never to have been published, and may have contributed to *Silverwolf*'s late appearance. Another game tying into a proposed St Bride's comic, the superheroine adventure *Wondergirl*, never materialised at all.

What did appear on game shop shelves, thanks to the efficiency of CRL, was *Bugsy*: the strange tale of a gangster rabbit rising through the Chicago mob via protection rackets and booze-running until he's big enough to take down Al Capone. Like Trixie, Bugsy is grudgingly respectful if you do well at the game, but basically has little patience with "keyboard bashers". "If you ain't figured dat dis street leads east/west by now, I ain't gonna tell ya," he growls.

And infamously, there was *Jack The Ripper*: a gruesome literary horror game, the solution to which involved wielding the pure and wonderful female soul essence of one of Jack's victims to end his reign of gore-charged terror. Interestingly, solving the mystery of the Ripper's identity is irrelevant, and after the first two thirds spent around the streets and houses of Victorian London, the final, utterly bizarre stretch has you wrestling with baffling Masonic puzzles in a subterranean underverse.



You are in a small low cavern.
You now see that the two red lights came from the tail lights of a powerful, low-slung automobile. It is jet black with a bat-like mask on the front and a sort of fin along the back resembling a bat's wing.



» *The Very Big Cave Adventure* proved to be one of the Spectrum's defining text adventure games.

"I THINK THEY REALISED THE GAMES WERE A BRILLIANT IDEA TO PUBLICISE THEIR SCHOOL"
CLEM CHAMBERS

"They were great games," remembers Clem Chambers. "They were anachronistic to their supposed ethos, but I think, basically, St Bride's were in business: they were doing it on a commercial basis, however un-commercial they may have looked! In those days, once you got past a certain level of complexity, you didn't need incredibly specialised skills to write computer games. I think they realised the games were a brilliant idea to publicise their school, and obviously they were right: they got buckets of press."

The games, as Clem rightly suspects, turn out to have been part of a wider business portfolio that also included handmade costumes and a publishing house, The Wildfire Club, through which the school published lesbian periodicals (*Artemis, The Romantic* and others) and books by Marianne Martindale such as *The District Governess* and *The Female Disciplinary Manual*.

Was it an innocuous institution for role-playing eccentrics, or was there something more fetishistic in its make-up? The answer appears to be both. On the one hand, it was a sort of "romantic retreat where 19th century values, politeness and dressmaking were preferred to the tawdry modern world", but in investigating St Bride's and its iterations, the word 'discipline' comes up a lot. In the early Nineties, before the school eventually closed, Marianne was convicted of caning a pupil rather more enthusiastically than the recipient would have liked. "Whenever I have a maid, she receives corporal punishment," she told *The Independent*'s Rosie Millard in 1995. "I have always beaten my maids."

» A review of *Jack The Ripper* from *Sinclair User* describes it as another "solid product of the St Bride's hothouse".

Following an unspecified disagreement with their landlord, the sisters of St Bride's decamped in 1993 to Oxford (where Clem Chambers once bumped into them, "still fully garbed out in all their crinolines") and then to London: specifically to Whipps Cross (no, really) near Epping Forest.

Priscilla Langridge disappears from the narrative sometime prior to the London arrival, but the St Bride's 'experiment' continued under Marianne's aegis, reverting to the 'Aristasia' name but still manifesting as a school.

There was again much spanking, witnessed in a 1996 Channel 4 documentary. But Marianne's sidetracking Aristasia into an overemphasis on fetish (whether she admitted that was what it was or not) seems to have annoyed many of her peers until she was effectively 'silenced'. For a time, she was the female columnist for the whimsical gentlemen's periodical *The Chap*, but there's even mystery here. Editor Gustav Temple remembers inviting her to a *Chap* party, only for a stranger to show up: "I said, 'Oh… you don't look very much like your pictures.' And this woman smiled and said, 'There are many Miss Martindales'… So we then weren't sure who exactly had been writing for us."

Aristasia gradually became a sprawling online community and eventually factionalised and broke apart; its 'intellectual descendents' metamorphosed once again into something called The Daughters Of Shining Harmony, while Miss Martindale married the film director John Guillermin and reinvented herself as a spiritual relationship counsellor in Topanga, California. An Aristasian embassy was once established in *Second Life*, promising "groups of girls to be found chatting at all hours of night and day". Until relatively recently, virtual archaeologists could still visit the site, long-neglected and eerily quiet.

The Burtonport St Bride's house too now stands empty, still vaguely known locally (among those who know it at all) as the home of The Screamers and the strange women that came after them. Tracing the fate of its former inhabitants may lead in unexpected directions, but its principal legacy, though modest, perhaps remains those eight simple games from the Eighties. Easily available at the click of an emulator, they allow a glimpse into a female-centric world where fantasies could be indulged: whether they be of schoolgirl shenanigans, fairytale quests or Gothic sleuthing. Three and a half decades on, while the games industry is now seemingly waking up to incorporating female protagonists in a meaningful way, it's worth remembering that St Bride's was there first, creating worlds where Trixie Trinian and Petra Stone could take decisive charge. It's just a shame that, among all the peripheral weirdness, hardly anyone noticed. ✱

COLD COMFORTS

There are, of course, compensations even to an English Winter. Many different ones. Mink, open fires, ermine, mulled wine, fox, hot chestnuts, chinchilla, and even the humble rabbit.

Do not take my previous pleric amies, dear reader. I yield to no one in my love and admiration for Nature and her Art. It is merely that, like many artists, she works better in collaboration. One must avoid the terrible mistake of those ghastly modern musical groups who imagine that they can write, play and sing their own music. They are jacks of all trades and painfully evidently masters of none. Popular music is the work of four kinds of artist: composer, lyricist, musician and singer. A few people combine the talents of two of them in one person. Very few (other than the above-mentioned Mr. Noel Coward) of more.

So it is with Nature. She cannot by herself make winter perfect. She requires three other kinds of artist: the designer, the furrier and the lady. The designer looks at nature's wonderful creations in the raw and sees how they can be shaped into something truly exquisite. The furrier executes this design with consummate skill. Yet all three artists are nothing without the fourth: the lady, who will display the work with elegance, poise and feminine magnificence.

Nature, Art and Breeding. The three indispensable ingredients of Perfection.

There is, of course, one further traditional requirement for Art, and that is Patronage. In the case of the Art that interests us at present, we may say that it is precisely for this purpose that the institution of Holy Matrimony was created, though if a Lady prefers to remain unmarried, her Daddy will usually prove generous. Or failing all else, she might even apply to the paternal relation.

These vulgar financial underpinnings of great Art have been rendered rather less troublesome in recent years by an absolutely wonderful body of people known as the Animal Rights Movement. These generous and compassionate souls dedicate enormous amounts of time, often at considerable personal risk, to lowering the price of furs to a point where they can actually be worn by ladies, and not just by the wives of multinational spivs and corporate cockneys. Often these campaigners are rather scruffy and dismal individuals themselves, which makes their concern for the welfare of those of us who have the means and the looks to dress splendidly even more touching.

It is not my usual practice in this column to wax sentimental, far less to be public-spirited. But this season is sometimes regarded as a time for giving. So if you have a few shillings to spare and were casting about for a worthy cause, do spare a thought for those selfless Animal Rights people.

On the other hand, if you have rather more than a few shillings to spare, I did have my eye on a rather splendid chinchilla stole in a charming little shop in Jermyn Street.

» Miss Martindale wrote a regular column for men's magazine *The Chap* after departing St Bride's, remaining elusive even to the magazine's staff.

Ballz 3D

AND MAMA BEAR SAID "GIT GUD"

» Mega Drive » 1994 » PF Magic

Getting a new Mega Drive game was always exciting, and some time in the late Nineties, I was able to convince my mum to part with enough shiny pound coins to leave Electronics Boutique with a copy of *Ballz 3D*. The writers at *Mean Machines Sega* had said it was brilliant, and they'd be the ones to know, right? Well, in hindsight that 91% score was probably a bit generous, but between the funny noises, unique game design and interesting graphical style, I was having a lot of fun with the game. Well, at least I was to begin with.

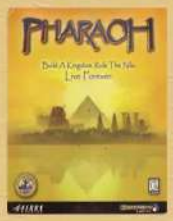
My younger sister had decided to play with me on the night that we got the game, and I happily obliged as it'd be more fun than playing matches against the CPU. And it was, until she started winning. This was highly unusual, as I usually had the upper hand in the games we played, but what really annoyed me was that she was doing it with just one move – Kronk's low club swing. Had I been sufficiently educated in fighting game lingo at the time, I'd have called it 'cheap'. I couldn't work out how to get in for a hit, the frustration built up to boiling point and I committed the ultimate multiplayer sin – I turned the console off, ripped the cartridge from its slot and began a shouting match.

Inevitably, this led to a parental intervention. As mum tried to get to the bottom of what had caused such a row, she soon determined that the fault was really mine and started questioning my reasoning. Eventually, she got me to say it: "She keeps just doing the same thing!" My mum's reply was perfect: "If you were fighting for real, would you stop doing something because it was working?" I had no comeback. I couldn't argue the point, and knew I'd have to just find a way to counter the move, once I'd calmed down enough to try again. So hey, thanks mum – you managed to get me to stop thinking like a scrub and start thinking like a winner.

THE MAKING OF PHARAOH

WITH A REMAKE SET FOR NEXT YEAR, WE TAKE A LOOK AT HOW IMPRESSIONS GAMES' FIRST CITY-BUILDER SET OUTSIDE ROME BECAME ONE OF THE MOST BELOVED OF ALL TIME

Words by Hareth Al Bustani



IN THE KNOW

- **PUBLISHER:** SIERRA STUDIOS
- **DEVELOPER:** IMPRESSIONS GAMES
- **RELEASED:** 1999
- **PLATFORM:** PC
- **GENRE:** SIMULATION

After uniting Upper and Lower Egypt, the newly proclaimed pharaoh has tasked you with building a capital worthy of a mighty empire. Duly, on a stunning plot astride the River Nile, you start building houses, farms and workshops, and then plazas and temples, juggling schools and bazaars. Suddenly, an outbreak of malaria tears through the city, followed by fires. Before long, you fall into debt, and the pharaoh sends his army in to wipe you out. The ancient world is *harsh*.

In 1998, when Impressions Games' founder David Lester left the company, the reins were handed to art director Chris Beatrice. As one of the company's veterans, he had helped set up many of the systems that allowed it to function and grow. "Keep in mind, I'm an artist," laughs Chris, "I was never a game designer or a CEO." At the time, Impressions' Roman city-building franchise *Caesar* was flying high. But, after a third iteration, rather than going back to the same well again, Chris and his team wanted to do something a little more ambitious.

Chris recalls, "We were constantly just trying to invent, and the idea of if you had a successful game that you would just build on, that was kind of an anathema – that wasn't what you did." The *Caesar* franchise had hit the sweet spot between the nitty gritty details of *SimCity* and the gameplay of *Civilisation*. *Caesar* not only let players design their own cities, but forced them to juggle an increasingly complicated set of demands in order to maintain prosperity, happiness and growth. Although one of the alternate city-builder concepts, '*Caesar* in space', was quickly dropped, when the idea of a game set in Ancient Egypt started floating around, the European marketing team promised to go all-in.

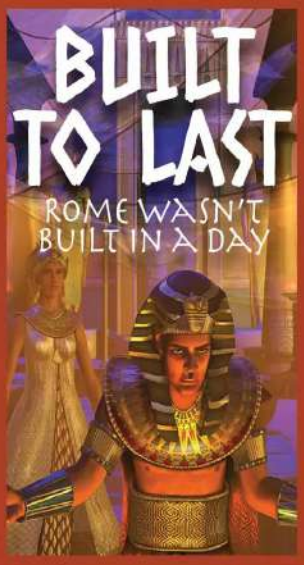
While David had an incredible knack for "getting 85% of a good game for 25% of the cost", this was a new era. While just two people handled the bulk of *Caesar III*'s programming themselves, *Pharaoh* had a team of roughly 20 people, toiling away for a year. In his first foray as a game designer, Chris walked a fine

DEVELOPER HIGHLIGHTS

LORDS OF THE REALM III
SYSTEM: PC, MAC
YEAR: 2004

ULTIMATE SOCCER MANAGER 98-99
SYSTEM: PC
YEAR: 1999

LORDS OF MAGIC (PICTURED)
SYSTEM: PC
YEAR: 1997



CAESAR

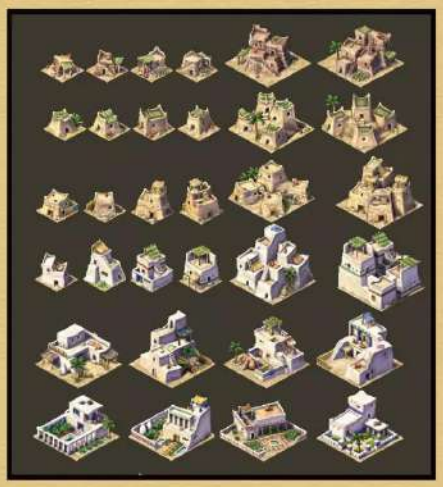
The original Impressions city-builder, *Caesar* pioneered the company's winning formula, bridging *SimCity* and *Civilisation*. The game tasked players with building a thriving Roman city, climbing up the ranks to the position of emperor. While *SimCity* largely consisted of zoning cities, *Caesar* required players to actively manage their settlements, and their defences.

CLEOPATRA: QUEEN OF THE NILE

Building on *Pharaoh*'s strengths, this expansion adds interesting new features. Players not only need to recruit lamp-makers for the workers toiling in the deep recesses of the royal tombs, but must also protect them from graverobbers. Meanwhile, *Cleopatra* mixes in enough new challenges, such as time limits, to keep the game fresh.

ZEUS: MASTER OF OLYMPUS

Moving the series once again, this time to Ancient Greece, *Zeus* built upon the innovations introduced by *Pharaoh*, adding a few of its own. Asides from allowing players to continue developing their cities over multiple missions, the game gives gods and goddesses an even more prominent role, alongside mythological heroes such as Hercules.



» A brilliant artist, Heidi Mann brought a painterly quality to the game, establishing a rich colour palette to bridge the art team's collective work.

» [PC] Rather than moving about randomly, the game's 'walkers' have set tasks, coming together to form elaborate supply chains.

line between polishing *Caesar*, while creating something unique.

Pharaoh's premise is fairly simple: create a settlement along a fertile patch of the River Nile, attract settlers and slowly advance your civilisation. However, in practice, this is a lot more complicated than it sounds. The Nile itself is a living, breathing wonder, flooding and drying up, depending on how much lip service the player pays to the god Osiris. Organising a functional city is a delicate art, requiring players to provide enough houses, entertainment and religious shrines, while still finding a way to balance the books. A successful settlement will need firefighters, architects, police stations, physicians and more, just to keep disaster at bay. Be it malaria, plague, fires or hippos, calamity looms menacingly on every corner.

As an example of just how complicated the game's society is, Chris recalls the chain of events that goes into the education system: "A guy goes out and he harvests reeds, and then the reeds get turned into papyrus. The schoolteacher goes and gets the papyrus and brings it back, and then the school puts out a teacher who then gives out education."

Unlike earlier games, walkers and cart-pushers will travel between destinations, rather than wander aimlessly. When populations swell to the thousands, things get extremely complicated. The game's director of technology, Mike Gingerich, says, "One of the big challenges with city-builders is that there are so many walkers that you can't spend a lot of CPU cycles or memory on any individual walker, but the map is also constantly changing. The floodplain tiles are not the only things that change. The player can draw a new road, or destroy a road section after a destination walker has calculated his route, or you could leave a wandering walker stranded without a way back."

As someone who describes himself as "50% artist and 50% scientist", Chris was uniquely suited to lead the team through such challenges. When it came to developing a new visual language, hoping to bring in a 'painterly' quality, reminiscent of

"WE WERE CONSTANTLY JUST TRYING TO INVENT, AND THE IDEA OF IF YOU HAD A SUCCESSFUL GAME THAT YOU WOULD JUST BUILD ON, THAT WAS KIND OF AN ANATHEMA – THAT WASN'T WHAT YOU DID"
CHRIS BEATRICE

» [PC] It's important to keep your residents entertained with musicians, dancers and jugglers, which also raises your civilisation level

EMPEROR: RISE OF THE MIDDLE KINGDOM

Sprawled across 3,000 years of Chinese history, *Emperor* is epic in scope. Even more complicated than its predecessors, trying to get to grasps with the game's feng shui and resource-management systems is difficult but rewarding. It was also the first game in the series to feature multiplayer, with both co-op and competitive offerings.

IMMORTAL CITIES: CHILDREN OF THE NILE

Chris Beatrice left Impressions to start Tilted Mill, taking his old team with him. There, they had a fresh start with *Children Of The Nile*, a 3D spiritual successor to *Pharaoh*. This time, combat is resolved automatically, allowing pharaohs to focus on the more satisfying task of keeping their people, and gods, happy.

IMMORTAL CITIES: NILE ONLINE

In 2009, Tilted Mill published the free-to-play *Immortal Cities: Nile Online*. Transporting the series into the realm of MMOs, it strips the city-builder of its fixed objectives and allows players to just keep building. While it remains the most obscure in the series, it still has some active members, utilising more than a million in-game workers and 2,000 ships.

HOLY MOLY

MAY THE GODS BE EVER IN YOUR FAVOUR

OSIRIS

■ The God Of The Underworld, and the Nile itself, Osiris is the giver of life. A wise player would pay their respects to him, to ensure predictable floods. Osiris' Temple Complex also houses an Altar Of Sebek, which allows residents to get by on less food, and the Oracle Of Min, which replenishes reeds and trees faster.

RA

■ In *Pharaoh*, Ra The Creator largely serves as the God Of The Kingdom – who can help the player keep in good standing with the pharaoh and trade partners. Building a Temple Complex in his honour raises a city's kingdom rating, lowering interest payments on debt. It also includes an Altar Of Ma'at and Oracle Of Horus, which lower crime, and wage expectations.

PTAH

■ Industrial centres will benefit from the benevolence of Ptah, who has the power to make or break economies. The Ptah Temple Complex speeds up production in the mines, shipwrights, jewellers and weavers, while the Altar Of Amon and Oracle Of Thoth make quarries, wood cutters, brickworks and education more efficient.

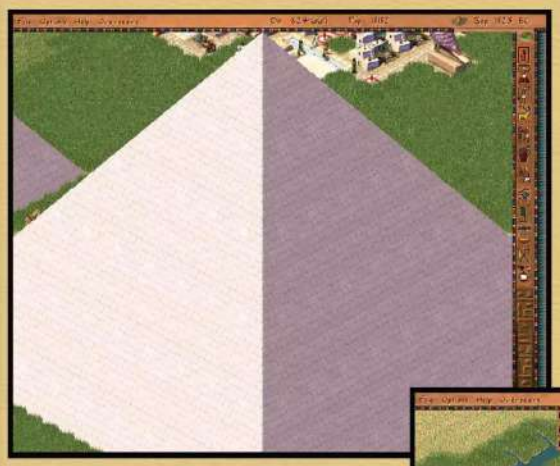
SETH

■ The God Of Destruction, players should be wary not to incur the wrath of Seth. While his favour can grant an army strength, his fury brings only annihilation. His Temple Complex not only improves soldiers but makes mortuaries less costly and gives priests the power to detain criminals.

BAST

■ The homemaker Bast watches over citizens' health and wellbeing. While appropriate devotion raises living standards, keeping citizens fed and happy, neglect will see her destroy homes and bodies alike. Building a Bast Temple Complex slows down consumption, improves healthcare and boosts the quality of entertainers, teachers and health providers.

Many thanks to Gog.com for providing the games featured in this article.



» [PC] The inclusion of monuments helped perfect the city-builder formula, giving players something tangible to work towards.

» [PC] When your entire civilisation is tied to the Nile, having a way to cross it proves particularly handy.

» [PC] Farming provides a much-needed source of food, revenue, and perhaps most importantly, beer.

» [PC] Just like the real Ancient Egypt, creating great monuments requires your entire society to pool their collective efforts to build them brick by brick.

NC Wyeth or the Hildebrandts, Chris turned to long-time collaborator Heidi Mann – a graduate of the Massachusetts College Of Art, who had worked on *Lords Of The Realm*, as well the *Caesar* franchise. As the lead artist for the project, she was responsible for establishing a colour palette.

Heidi recalls, "We looked at a lot of pictures of Egypt, and we had a book about how Disney established their style for the *Prince Of Egypt* movie. We did a lot of purplish-blue shadows, with more warm-yellow-orangey light." Throughout the Nineties, games with large art teams often suffered from disjointed visuals – depending on which artist worked on which parts of the game. Establishing a colour palette allowed the team to overcome this, creating a cohesive visual thread that ran throughout the game.

» [PC] You can plan the most beautiful city in the world, but without firefighters and architects, you're doomed for disaster.

Despite being set entirely over a 2D grid, *Pharaoh* boasts striking three-dimensional graphics. Remarkably, the visuals were first built and prerendered in 3D, and then a grid of diamond-shaped tiles was placed atop. This was then painted over using the 3D light sources as a guide, giving the entire game that coveted painterly quality. Although Heidi was technically the lead artist, roles were relatively fluid – Heidi did some work on animations, and Chris even animated the game's ostriches.

As players advance their civilisations, their residents automatically upgrade their buildings into more beautiful forms. Speaking as someone who "doesn't really play games", Heidi says it was a lot of fun watching your buildings and town grow in this way. "And then, something would come and destroy it. Well, usually for me anyway, because I wasn't good at it," she laughs.

Although this premise was very much the same as *Caesar*'s, moving the game to Egypt inevitably led to what Chris says was the 'missing piece' of the entire city-builder puzzle: the monument. A self-professed history buff, Chris beams, "These monuments, like the Great Pyramid, were built early on in Egypt – it wasn't even the pinnacle of their civilisation."

» [PC] After building a hunting lodge, players can hunt wild beasts and not only hand them to the local markets but trade their surplus.

» [PC] Peace and prosperity are all well and good, but without a commercial backbone, you'll end up not only bankrupt, but incurring the pharaoh's wrath.

» [PC] Building a village palace enables you to send out tax collectors, but without a police force, you may end up getting robbed.

» [PC] Programming the Nile to flood and recede was a particularly complicated affair, with knock-on effects on almost every other game mechanic.

» [PC] If you can't produce everything you need, you may have to establish trade links and import materials instead.

He says adding monuments into *Pharaoh* turned it into the best of all the city-building games. "I say that as the person who designed some other ones too," he points out.

"With *Caesar* and the city-builder games before that, it was hard to have a purpose to your city – you had these ratings, like, 'Oh great, you've got a bigger population, and they're all happy' – and that's more than *SimCity* had, but it's still not a tangible goal. But now that you've got your city working like a machine, and everything is just pumping into this monument that's growing on your screen – for a 2D game in those days to have something that big on your screen, was really something."

Just like in Ancient Egypt, these epic works become the focal point of the entire society's efforts. In order to build a brick-core pyramid, for example, players must not only amass vast quantities of materials and labour, but establish carpenters', bricklayers' and stonemasons' guilds to create a skilled workforce.

Once construction has started, the game's epic pyramids are slowly built, block by block. Getting this to work was a technological marvel all of its own. Greg Sheppard, the producer for *Pharaoh*, remembers the team trying to fine-tune the construction engine, all the way down to the wire. Greg says, "*Pharaoh* was going to be a much bigger game than *Caesar III*, so we needed an engine that could handle the load. Block-by-block pyramid construction was such a significant technical challenge for programming, that we were still fixing show-stopping bugs in that area a few days before the game went gold." Going 'gold' was a reference to producing the gold master disk, which was taken to the replication facility once the game was complete.

> "WE LOOKED AT A LOT OF PICTURES OF EGYPT, AND WE HAD A BOOK ABOUT HOW DISNEY ESTABLISHED THEIR STYLE FOR THE PRINCE OF EGYPT MOVIE. WE DID A LOT OF PURPLISH-BLUE SHADOWS, WITH MORE WARM YELLOW-ORANGEY LIGHT"
> HEIDI MANN

As the snow began to fall and the team neared its deadline, months of 16-hour days were finally coming to a head. Chris recalls one evening when a programmer got up and put on his coat at 6pm. "I was like, 'What are you doing?' He said, 'I got tickets to this baseball game,' and everyone looked at him like, 'What are you talking about?' They thought he was joking." The programmer came back to the office at 1am. "I remember scraping ice off my car at five in the morning," Chris adds. "We ate dinner there every night, we brought food in; we even had thanksgiving dinner in there."

One week before the game was set to go to the replicator, the team realised the combat system hadn't actually been assigned yet. "Yeah, we were never really too proud of it," Chris sighs. Everyone assumed it had been assigned, but the programmer had never got to it. "This was the same programmer who went to the baseball game, actually," Chris laughs. The programmer spent the next week running in and out of Chris' office, speculating over a variety of hypothetical game-breaking scenarios.

Producer Greg, says those last two weeks are "just a foggy blur" to him now. "But I can clearly remember when we deemed the game ready to ship. It was just past dawn when about a dozen of us, bleary-eyed and exhausted, gathered in the company kitchen to enjoy the beer the company had provided for the occasion." Chris says things were so close that, "We put someone on a plane to LA in the middle of the night, just so we could get the DVD to the replicator a little bit later, and have a little bit more time to work on it."

While the company's later city-builders continued to add new gameplay, Chris believes *Pharaoh* remains the most rewarding experience. "*Pharaoh* just has this mystique, a soul to it," he adds, even down to Heidi's evocative box cover. Gamers agreed – despite being developed for a few million dollars, the game sold a whopping 1.4 million copies, at $45 each – accounting for more than a quarter of the entire franchise's sales.

Chris reflects, "That opportunity at Impressions to do that game changed my life and allowed me to start my own company, with all those people, so it's deeply personal. My son was being born and I was in the hospital writing the *Pharaoh* tutorial on my laptop." Earlier this year, Dotemu and Triskell Interactive released a trailer for a remastered version of *Pharaoh*, called *Pharaoh: A New Era*. Chris found viewing the trailer a surreal experience: "It's hard to explain, but it's probably like seeing your kid get married or something." ✱

Doctor V64

» **PLATFORM:** NINTENDO 64 » **RELEASED:** 1996
» **COST:** $450 (LAUNCH), £280+ (TODAY, BOXED), £80+ (TODAY, UNBOXED)

Console development kits are always an expensive purchase, so it makes sense that companies would seek to offer their own solutions in the hope of generating money from cash-strapped developers. Hong Kong's Bung Enterprises was well-known for that, and it was first to market with the Doctor V64. The large, white device plugged into the expansion port on the underside of the N64, with an accompanying cartridge adapter to connect official cartridges for the use of their lockout chips. From there, it was possible to boot game data from the CD-ROM drive.

Of course, many manufacturers of piracy devices protest that they are simply development tools, and the Doctor V64 was certainly capable of enabling piracy. In fact, we'd guess that was probably vastly more popular than the 'official' usage case. As well as booting game 'backups' via the CD-ROM drive, the Doctor V64 could transfer files to a PC via the parallel port on the rear of the device. It did also add some legitimate extra functions that a user would be interested in, though – apart from CD audio playback, the Doctor V64 supported the Video CD movies that were popular in Asia during the Nineties. *

SYSTEM SUPPLIED BY **EVAN AMOS**

Doctor V64 fact

■ A second version of the device, the Doctor V64 Jr, was released in 1998. This had a smaller form factor with no CD drive, and plugged straight into the Nintendo 64's main cartridge slot.

ESSENTIAL GAME

SUPER MARIO 64

With devices like the EverDrive series out there now, the Doctor V64 represents a pretty quaint way of playing games. However, such devices are always useful for playing hacked versions of games, and few N64 games have a modding scene that can match that of *Super Mario 64*. If we had the means, we'd go back in time to 1996 and use a Doctor V64 to prove that 'L is real' by recording a short clip of Luigi running about the castle in full 3D glory. Wouldn't that have been a nice way to make some people's heads explode?

ARCADE HEAVEN

FOR MANY COMPANIES, THE MANTRA FOR SUCCESS IS TO USUALLY GO BIG, BUT NUMSKULL DESIGNS WENT SMALL AND IN DOING SO IT CREATED A RANGE OF CLASSIC ARCADE MACHINES THAT CONTINUE TO GROW IN POPULARITY TODAY

WORDS BY DARRAN JONES

It's rather fitting that the latest game cabinet to feature in the Quarter Arcades range is dedicated to celebrating *Pac-Man*'s 40th anniversary, which took place earlier this year. It's fitting because it was Namco's iconic mascot which helped launch the concept of a miniature arcade machine back in December 2018, and since then the development team behind the idea hasn't looked back.

For Matt Precious, Numskull Designs' managing partner, this dream of creating miniaturised versions of his favourite arcade games harks back to his own childhood in the Eighties and a desire to recreate the nostalgia of visiting his local arcade. "I was very fortunate to go to school in a seaside town that had some fantastic videogame arcades," he tells us. "I fell in love with the whole environment, I loved the games, but for me it was all these different cabinets crammed together in the same room, the symphony of noise, the flashing lights."

Matt's memories of those early arcade games, and their vivid artwork and interestingly shaped cabs, stayed with him in later years, and eventually he found himself in a position where he could make those dreams a reality. "I wanted to try and preserve these machines so they are not forgotten, both for people who remember those fantastic times and to also bring back arcades for a new generation."

Thanks to the rising interest in retro gaming, there are plenty of ways to enjoy playing arcade games in your home, from full-size dedicated cabinets with Raspberry Pi computers in them, to single official releases on contemporary consoles, but if you want an official experience you don't have as many options (see 'Bringing The Arcade Home'). Another thing to keep in mind with arcade machines is the sheer amount of space they can take up, and it's rather telling that most of the licensed cabs that currently exist on the market are rarely full-size replicas.

Dedicating a large amount of space to an arcade machine is a big ask, and this was certainly something that Matt and the rest of the team had in mind when they came up with the idea of these new mini cabinets. "It was imperative that we made these machines as close as possible to the originals in both gameplay and look," he tells us. "I was very conscious that most people couldn't recreate those arcades full-size in their homes, so making them quarter scale seemed the perfect size to make sure they would still be playable and enable fans to recreate their own arcade."

That last point is interesting, because arcade machines, like pinball tables, have a habit of multiplying and we've seen many would-be collectors say how they were only interested in owning one particular machine and then saw that single cabinet multiply exponentially. Play a single game for enough time and you'll eventually master it, and that's as true of arcade games as it is of any other. If you don't want to replace your cabinet that means buying more, which eats into your floor space. Quarter-sized alternatives certainly solve this issue, but only if the quality of the cabinets make them worth considering in the first place.

The quality aspect of the range is something that's very important to Karl Mizen, Numskull Designs' creative director. "Quality control is critical," he tells us. "Our manufacturing process involves multiple factories, so we have quality control checks at various stages of assembly. Unlike modern electronic devices, we construct Quarter Arcades out of wood, not plastic, meaning the development and manufacture of the cabinets and electronics are entirely separate. Final assembly will only proceed once these two stages are approved, which leads to the ultimate quality control check of the completed machine."

Before we start delving into the creation of the cabinets, Matt is keen to explain how the concept of Quarter Arcades was originally pitched to the likes of Bandai Namco, and eventually other publishers such as Taito and Konami. "We are a merchandising company that deals with a lot of gaming publishers, so introducing the concept of Quarter Arcades to them was pretty straight forward," he explains. That concept involved Matt and his team sharing a number of rendered concept images of the machines they were hoping to make, which

The current Quarter Arcades line-up in all its glory. *Dig Dug* is due early November.

» The dream for the team is to allow owners to create their own personalised arcades.

» Matt Precious tells us, "We won't release a machine until we are happy with the quality and design, and in the past this has caused delays."

BRINGING THE ARCADE HOME

ALTERNATIVES TO THE QUARTER ARCADES RANGE

ARCADE 1-UP

PRICE: £350+

■ Annoyingly, most of the best games in this series are exclusive to the US, although a few offerings including *Street Fighter II*, *Space Invaders* and *Mortal Kombat*, are available from stores like Smyths. The main difference with the Arcade 1-Up range is that they are three-quarter size and typically come with a small range of games (the *Mortal Kombat* cabinet includes the first three games, for example). They're more adventurous in their designs than the Quarter Arcades range, too, with certain cabs catering for up to four players (*Teenage Mutant Ninja Turtles*) or featuring bespoke controllers (*Star Wars*).

MICRO PLAYER

PRICE: £29.99

■ These cute little machines from MyArcade might not be able to match the build quality of the Quarter Arcades range but they are a fraction of the price, making them perfect stocking fillers. Like the Arcade 1-Up machines, many of the best games haven't made it over to the UK yet, although the likes of *Galaga*, *Caveman Ninja*, *Pac-Man*, *BurgerTime* and *Bubble Bobble* are available. It's worth noting, however, that while these six-inch machines do a good job of capturing the aesthetic style of the original cabs, they typically contain emulated NES versions of the actual games.

LEGENDS ULTIMATE

PRICE: £799

■ This ambitious offering from AtGames is a world away from the other models we're featuring here. The Legends Ultimate is a gargantuan cab that features 300 licensed games, including *Qix*, *Space Invaders*, *Asteroids* and *Tron*, as well as the ability to stream games and compete on global leaderboards. NES, SNES, Mega Drive and Atari 2600 games are also included, and you can even pause, rewind or save progress. The machine also includes two spinners, a trackball, the ability to play additional games via an online service called ArcadeNet and many other neat features.

REPLICADE

PRICE: $119

■ At this moment in time, these cool 12-inch cabinets from New Wave Toys are mainly available in the US and they're expensive to ship, so keep that mind. They are worth considering though, as they appear to be solid replicas, with the *Tempest* cab even going so far as to add a spinner. While the *Street Fighter II* cabinet does lack a second joystick, a separate controller is available. A *Dragon's Lair* offering is also in the works and others are planned, too. Hopefully, we'll see a UK distributor snap the complete range up.

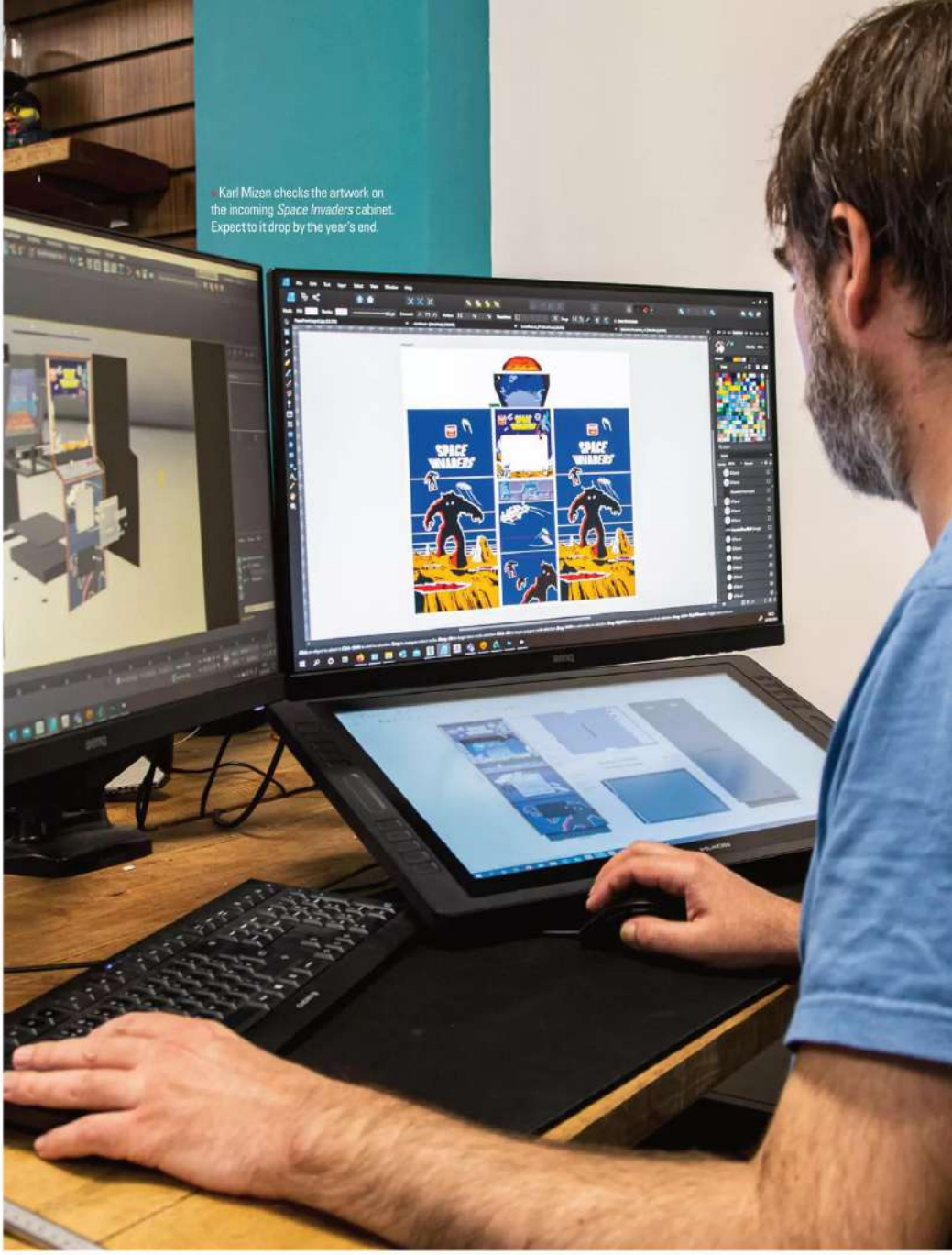
ARCADE HEAVEN

made it a lot easier for prospective companies to jump on to the idea. Despite the keen interest the brand received, Matt and the team found that getting a company on board was only the start. "One pitfall we discovered fairly quickly is that although the publisher owns the rights to the game, they don't always still hold rights to the entire [package], such as the original artwork or music," Matt continues, "so, we then have to try and track down other licensees to get the rights to make our machines as genuine as possible, which I think our fans appreciate."

This extra time tracking down all the required parts of a machine is possibly one of the reasons why new cabinets aren't regularly released month after month. Since *Pac-Man* made its debut at the end of 2018, only three other Quarter Arcades cabinets have been released: *Galaga*, *Ms Pac-Man* and *Galaxian*, although three additional cabs – *Dig-Dug*, *Space Invaders* and *Bubble Bobble* – are due for release by the end of the year (*Track & Field* is expected early 2021). There's also the aforementioned *Pac-Man* 40th anniversary cab, although the signed versions have now sold out. We'd argue another driving point behind the limited amount of cabinets currently available in the range comes down to the fact that Karl and the rest of the team really do appear to be putting quality over quantity. A global pandemic isn't going to make things easy, either.

"All of our Quarter Arcades parts are custom-made," says Karl. While each game in the range shares certain key design components like joysticks and buttons, they are otherwise as bespoke as the cabinets on which they are based upon, which means a lot of additional work for Karl and the team. "Upon completion of our digital model, we break the cabinet down to its individual parts and assess which details we need to tool from scratch – features such as coin doors, control panels, buttons and handles," continues Karl. "All require bespoke tooling as they don't exist in quarter scale. Luckily, we can share parts with arcades that have similar characteristics and attempt to limit this where we can. It is an expensive process but a necessary one to create an authentic replica."

That authenticity is important to Karl and Matt, and it's one that's paid off as the cabinets we've experienced (*Pac-Man*, *Galaga* and *Ms Pac-Man*) all look very solid and certainly don't feel cheap to use. Granted, they lack the heft and feel of an actual full-size machine, but as they're not made from exactly the same parts this is to be expected. What the range does do very well, though, is capture the *feel* of those original cabs and it largely comes from the team trying to create them as accurately as possible. "We base all parts on the originals, just quarter the scale," continues Karl. "We try to replicate the arcades inside and out, not only for aesthetics but also function. *Space Invaders* uses an illusion technique called 'Pepper's ghost' which uses glass to make the game's graphics appear to float in front of an illuminated backdrop. To replicate this, we took the original



Karl Mizen checks the artwork on the incoming *Space Invaders* cabinet. Expect to it drop by the year's end.

PAC IN THE GAME

MATT PRECIOUS ON QUARTER ARCADES' PAC-MAN CONNECTION

Earlier this year, Numskull announced a very special version of *Pac-Man* to tie-in with the 40th anniversary celebrations that would be taking place throughout 2020. The reveal was a special edition of *Pac-Man*, which featured brand-new artwork that captured the essence of the 40th anniversary branding. Additionally, 256 of these cabinets were signed by *Pac-Man*'s creator, Toru Iwatani. Needless to say, the Quarter Arcades team jumped at the chance of collaborating with the iconic games developer. "*Pac-Man*'s 40th is such an incredible milestone in the history of gaming that we wanted to be able to celebrate this with the fans, so creating a 40th anniversary cabinet as they did back in the day seemed the best way to honour this occasion," explains Matt Precious. "Getting Toru Iwatani to sign 256 versions, one for each level of the game, was just incredible, and I think it shows the fantastic collaboration we have together."

That collaboration has been ongoing, as the original Quarter Arcades *Pac-Man* machine wouldn't have existed without Iwatani's blessing. "Working with Toru Iwatani is a dream come true, he is an absolute legend, and before we could bring our *Pac-Man* machine to the market, we had to get it signed off by the man himself," continues Matt. "I think he appreciated the effort and details we had put into the machine and that it was playing his original creation. He even signed a Quarter Arcades *Pac-Man* for me as a thank you, which takes pride of place in my office."

» We're keen to play the *Bubble Bobble* cab as we're interested to see how well it caters for multiplayer.

» Matt Precious says *Pac-Man* "was probably the steepest learning curve, as everything was bespoke".

Space Invaders apart and recreated the internal structure exactly to get the same effect."

This attention to detail is one of the strengths of the Quarter Arcades range and while the machines are far from perfect – the detail on the coin slots could do with a little more work, and the LCD screens are obviously no match for a real monitor – they do offer solid emulation, which is crucial to the overall experience. "We use a bespoke emulator which we developed for the sole purpose of Quarter Arcades," continues Karl. "We use this emulator in all of our machines and load the individual game ROM to each device. The ROMs are all the original arcade versions and approved by their respective publisher."

One thing that is hard to escape when talking about the Quarter Arcades range is the price of the machines themselves, which typically hovers around the £130 mark. While that cost is certainly higher than some cabinets on the market, Matt feels it is justified when you consider the bespoke nature of the cabinet in question. "When we started this project, we made one big decision, which was to make Quarter Arcades the most authentic arcade cabinet on the market," he tells us. This strive for accuracy included everything from buying full-size versions of the original cabinets,

» Matt (left) feels quality is key to the range, hence using wooden parts over plastic ones.

» Matt has no issues with having competitors. "I do think Quarter Arcades is unique in the market as what we have created is quarter-scale replicas, with all the details, shape, artwork and parts of the original machine."

to making sure the positioning of individual speakers is accurate in order to hopefully recreate the same acoustics of the original cab, and even using wood parts over plastic ones. That inevitably means making things from scratch, which inevitably adds to the cost. "We design the machines with no price in mind – as this would mean the design would have to fit the cost, leading to corners being cut and parts being almost, but not quite right," continues Matt. "The retail price reflects the quality of the parts and production to make sure the units are as authentic and as accurate as possible, and still affordable for customers to collect."

And there's no denying the collectibility of the Quarter Arcades range. While there's not much variety in the games that are currently on offer (there's little gameplay variation between *Pac-Man* and *Ms Pac-Man* or *Galaxian* and *Galaga*), incoming projects like *Bubble Bobble*, *Track & Field* and *Dig Dug* indicates that the team will start pushing the range in newer interesting ways. We're particularly keen to see how the pint-sized cabinets will cater for two players at a time, and how those smaller buttons will hold up after multiple plays of *Track & Field*. If we have one complaint about the range as it currently stands, it's that the games on offer feel a little conventional, with no attempt to currently tackle more bespoke cabinets like the *Star Wars* one offered by Arcade 1-Up. We'd love to see the likes of *Paper Boy* or *Out Run* given the Quarter Arcades treatment, and while Matt is certainly remaining tight-lipped about on what's on the horizon, he's certainly not ruling anything out. "Well, we do love a challenge, and both those machines are amazing," he muses. "There isn't a machine we would look at and say, 'Well that's too difficult to make.' We are always challenging ourselves to make better Quarter Arcades."

And that pursuit for perfection is going to be key if Matt intends to achieve his core goal which is the ability for fans to create their own dream arcade. "We want to bring out a significant and varied range of machines to the market because everyone's dream arcade is different," he concludes. "We didn't make these machines to make a quick buck, if it were, we wouldn't have made them as we have, it's always been a project full of love, passion and many tears, and I hope people understand this and support us to keep Quarter Arcades going for many years to come."

If Matt, Karl and the team are able to build on the momentum they have so far, offer more varied bespoke machines and get arcade giants like Sega, Capcom and Atari on board the Quarter Arcades project, that dream has a very good chance of becoming reality. ✱

Streets Of Rage 2

SPOILING FOR A GOOD FIGHT

» MEGA DRIVE » 1992 » SEGA

During a stressful stint launching my university's student newspaper in 2012, I met Carrie. She was design head of the features section, I was deputy news editor, and during an intense 72-hour deadline shift, we hit it off. We've been together ever since.

There's a lot I like about Carrie, and one of those things is that she not only understands videogames as a hobby, but she enjoys playing them herself. "What luck!" 2012 Drew said to himself upon learning this crucial information. "She's perfect." He was right.

Despite sharing this pastime, our tastes rarely overlap, though. I like action, RPGs and stories that crush me emotionally; she likes life sims, resource management and anything with anthropomorphised food. When we do find a game we both like, however, my god are we a team for the ages. Our *Minecraft* homestead would make *Grand Designs*' Kevin McCloud soil himself in awe, we often reminisce about how we used to be the terror of the bottom lane in *League Of Legends*, and we're better than a pair of Gordon Ramsays in *Overcooked*.

This year, though, we haven't really found anything to play together. So, motivated by equal parts of stay-at-home boredom and curiosity, I thought we could put this dream team through a retro test. One of my old Mega Drive favourites, *Streets Of Rage 2*, was selected with surgical precision, due to our experience of playing a more modern scrolling beat-'em-up, *Castle Crashers*, and stealing each other's dirty apples off the floor.

I was nervous about how she'd react. This is a cherished game from my childhood and I was afraid she'd hate it. I remember when my mum bought it for me in Argos so vividly I can still feel how the plastic ends of the game box dug into my palms.

I needn't have worried, though. It turns out that raging on the streets is right up Carrie's alley. She's really good at it, too – I reckon it's all that pent-up frustration at being trapped in a flat with me, an insufferable neat freak and professional troll. In the end, my strategy was to hide behind her and pick off any of the dregs she threw my way. If I ever got too close to her, I'd be subject to a flurry of fists and kicks from Blaze and a noncommittal, "Uh, sorry..."

The Carrie-Drew dynamic duo run aground and lost all their continues against R Bear, level five's combo-spewing nightmare of a boss. Still, that's pretty far into the game and good going for a first attempt. I think we could try something a little harder next. I wonder how Carrie will feel about enlisting to fight in *Contra III*'s Alien Wars... ✱

DIY GAMING

THE ROM-HACKING SCENE

Companies hate it, amateur game designers love it, and most of us don't have half a clue of how to do it. We take a look at the art of console ROM hacking, and how it has transcended its murky beginnings to fulfil gaming desires that can't be satisfied elsewhere

WORDS BY NICK THORPE

» [NES] The best ROM hacks, like *Metroid: Rogue Dawn*, can feel a lot like lost sequels to cherished favourites.

» ROM hackers spend lots of time looking at games in hex editors. Here's *The New Tetris* – isn't it exciting?

Allow us, if you would be so kind, a bold opening statement: in our belief, the internet could be mankind's most costly mistake. After all, what has it given us? New ways to argue with our relatives, the self-destructive temptation to read our work emails when we should be getting some rest, and PewDiePie. So why do we put up with it? Simple – it's the best outlet for collective creativity that we've got. We see people make cakes that look like bog rolls, so we go off to make one that resembles a NES cartridge. We get a little rush when people like our crudely edited images of Bernie Sanders asking for something. Remix culture is perhaps the one redeeming feature of the internet, and ROM hacking is a perfect expression of that culture. By taking existing games and editing them, players can create new and sometimes drastically different experiences.

Of course, gamers using arcade, home console and handheld games aren't really *supposed* to go poking around in the code – and unlike the players of home computer systems, they aren't really given the tools to do so. With that in mind, it's no surprise that the art of ROM hacking has rather murky origins. One of the most common sources of ROM hacks in the early days of videogames was the arcade market, where bootleggers would offer rebranded and sometimes slightly modified versions of popular games, like *Pac-Man* and *Donkey Kong*. Few of those ended up generating any lasting impression, but there are a few with cult followings such as *Street Fighter II: Rainbow Edition*, which adds crazy homing fireballs, mid-air specials and mid-match character switching. It completely destroyed the game's balance, of course, but that was of little concern to the bootleggers making it – nor the players who wanted something new from their favourite fighting game.

Things were much the same on the home consoles. Early on, many edits were made by piracy groups to bypass copy protection measures and strip out company logos. However, those groups soon learnt that their products would be more appealing if they seemed to be unique. Some went down the route of developing original games using characters they didn't own, but many simply edited existing games to make them seem like distinct products. Speedy Gonzales was booted out of his own games to allow pirates to sell *Sonic* games to Nintendo owners, *International Superstar Soccer 64* gained an apparent endorsement from Ronaldinho to appeal to the Brazilian market. This practice went on longer than you might imagine, too – just check out *Angry Birds* (actually Konami's *Moai-kun*) for the NES, or *Call Of Duty: Ghosts* (*Time Trax*, in reality) for the Mega Drive.

For many years, the average gamer simply couldn't participate in ROM hacking – there was simply too much specialised equipment and

» [Arcade] This *Pac-Man* bootleg is an early example of a ROM hack, featuring some altered graphics and a new maze layout.

expense involved. That changed during the latter half of the Nineties, thanks to the growth of the internet. Illegal distribution of game ROM images became widespread, and the rapid development of easily distributed emulators gave players an easy way to use them. Suddenly, thousands of technically minded players had old games in a setting that allowed them unrestricted access to the data within. Digital archaeologists quickly took interest in ROM hacking, as it allowed them to uncover remnants of the development process that had been left hidden in games. Fans got to see their cherished favourites in a whole new light as they discovered unused levels, lost graphics and sound, and sometimes even the odd profanity-laden developer tirade.

In order to discover such things, hackers had to gain a good knowledge of the data structures of the games they were looking at. Quite often this was a community effort, with ROM hackers sharing their knowledge on message boards and fan sites. That knowledge was also useful for budding game designers to tinker with the existing data, who were able to easily distribute their hacks to like-minded players. Anyone familiar with the internet could guess what happened once the field was opened up. The late Nineties saw a wave of thematically crude, low-effort graphical hacks, most often for the NES, typified by atrocious releases like *Anti-Hippie Dr Mario* and *Satanic Freak Bros.* But

» [NES] *Anti-Hippy Dr Mario* is pretty typical of 1998's hacking scene, containing poor graphical edits and little else.

TOP WHACK HACK SHACKS

A SELECTION OF EXCELLENT PLACES TO PICK UP SOME ROM HACKS

ROMHACKING.NET

romhacking.net

A huge, nicely categorised repository of ROM hacks for all manner of games and systems, with separate sections for utilities and instructional documents too. If you're looking for a hack for a game that doesn't have its own dedicated hacking community website, this should be your first destination.

SMW CENTRAL

smwcentral.net

What could be more appealing than a bit more of the best game ever? This site features over 1,000 hacks of *Super Mario World*, from nightmarish challenges to easy, child-friendly remixes. The site also contains smaller sections for *Super Mario 64* and *Yoshi's Island*, if you fancy something different.

SONIC HACKING CONTEST

sonichacking.org

This friendly competition was first established in 2002 and sees *Sonic* fans get together annually to show off their projects, whether they're on the classic 2D games or the more modern 3D offerings. The website's 'Vault' section hosts most of the entries from each year since 2012.

METROID CONSTRUCTION

metroidconstruction.com

If you can't get enough of Samus, this is the place to go for both nicely categorised hacks and the resources to make them. *Super Metroid* is clearly the most popular game here, but there are also dozens of hacks for the original NES game and *Metroid: Zero Mission* too.

A LINK TO THE PAST: RANDOMIZER

alttpr.com

If you fancy trying out something unique, this site will alter your *The Legend Of Zelda: A Link To The Past* game into something brand new. Once you've chosen your parameters and supplied your ROM, the locations of key items are shuffled about, completely changing the order and flow of the game.

» [Mega Drive] *Streets Of Rage 2: Extreme Alliance* lets you take control of the third game's bosses.

» [Master System] It's easy to see how *Phantasy Star*'s original translation was hobbled by the text-drawing code.

» [Master System] Retranslations like this are surprisingly common – *Castlevania II* and *Final Fantasy VII* also received them.

being *good* wasn't really the point – the point was satisfying your own desires. "I spent a lot of time playing *Sonic* games as a kid, and once I got internet access I naturally beelined for the fan community. Luckily, I managed to avoid the more notorious parts of the fandom and instead discovered the burgeoning hacking/fan gaming scene, where I happily devoured all the games Sega was too smart to make," says Supper, a ROM hacker with a number of translation projects under his belt. "Just about everything was silly and poorly made by objective standards, but damned if I didn't love it. The *Sonic* scene is definitely where I learnt the ROM hacker's philosophy of making your own fun instead of expecting the corporate world to hand it to you."

It wouldn't have been fair to expect gold – most people in the scene were enthusiastic amateurs, working with only partial knowledge of the games they were editing. Even so, they possessed technical skill far in advance of most people. As a result, programmers would make hacking utilities for others to use, reducing the knowledge barrier and opening up the scene to more people. Early DOS tools included the likes of BubbleEd for the NES version of *Bubble Bobble* and SonED for the *Sonic* series, and the *Super Mario World* editor Lunar Magic drew plenty of attention on Windows after it was released in 2000. "Several years ago, my brother discovered Lunar Magic and had shown me videos on YouTube of players trying out *Super Mario World* hacks. I really liked all the ideas and creativity put into these hacks by their respective hackers. This might indeed have ignited my first sparks of interest in ROM hacking," says Calindro, the author of Emulicious and the *Alex Kidd* hacking utility KiddEd, which entered development in 2013.

> "JUST ABOUT EVERYTHING WAS SILLY AND POORLY MADE BY OBJECTIVE STANDARDS, BUT DAMNED IF I DIDN'T LOVE IT"
> **Supper**

» [SNES] *Kaizo Mario World* is infamous for its insane difficulty, enjoyed primarily by masochists. This is the *first level*.

» [N64] This incredibly niche ROM hack replaces *Mario Kart 64*'s characters with the cast of the Japan-only dating sim *Amagami*.

UTILITY BELT

FANCY A GO AT ROM HACKING, BUT DON'T KNOW WHERE TO START? TRY THESE UTILITIES

LUNAR MAGIC

fusoya.eludevisibility.org/lm

■ Probably the most famous ROM-hacking utility ever released, FuSoYa's tool lets you edit all facets of *Super Mario World* – create your own levels, make your own worlds, go absolutely nuts.

KIDDED

emulicious.net/kidded

■ This incredibly flexible editor allows you to rework all aspects of *Alex Kidd In Miracle World*, from stages to shops, and even integrates a graphics editor for when you need to change sprites.

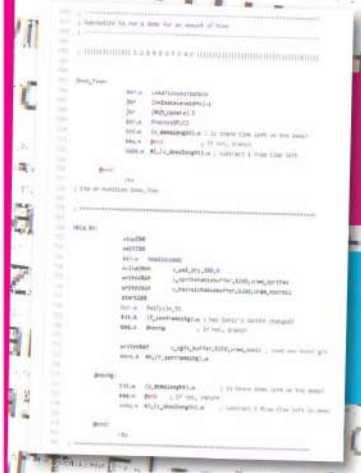
» [NES] Some ROM hacks are pretty unobtrusive, like the *Battletoads* bugfix patch that corrects many of the game's unintended behaviours.

» [Master System] Some games are unrecognisable after hacking – *Voyage: A Sorceress' Holiday* was originally *Alex Kidd In Miracle World*.

"One day, the user 'hang-on' from the SMSPower forums started an attempt at hacking *Alex Kidd In Miracle World* to make it easier, so that his little son could enjoy the game that he had fond memories of. At this point I thought, '*Mario* has an editor but *Alex Kidd In Miracle World* doesn't? Lets give it a try and lets see how far we get.'" However, this proved to be a difficult task, as *Alex Kidd In Miracle World* hadn't drawn the same kind of community research efforts as *Sonic* or *Mario*. "There was a little bit of information already available but most of the research had to be done by myself," remembers Calindro. "Emulicious didn't have a debugger so I was limited to using the tools that were available back then. Progress had been slow and reverse engineering was cumbersome so I started work on Emulicious's debugger to ease the reverse engineering of *Alex Kidd In Miracle World*, which in turn also facilitated the development of KiddEd." While Calindro hasn't made anything with the utility, creators have used it to make well over a dozen projects including *Alex Kidd In Radaxian Rumble* and *Voyage: A Sorceress' Vacation*.

Another way to encourage quality ROM hacking was to make it into a competitive event, and the Sonic Hacking Contest was set up with this goal in mind. The contest has run every year for well over a decade, with 2019's contest attracting 59 entries almost evenly split between the judged 'For Glory' and award-free 'For Fun' categories – and that's after the organising team has screened entries according to quality control criteria, in order to avoid becoming a parade of mediocrity. "Since 2011, we have the streams and the interactive voting – it's not just judges that play this, it's the wider community," explains current organiser and judge Spanner, who joined the team in 2010. "Do you want people having to sift through all these entries? They'll just play a few crap entries and think the rest of the contest isn't good quality." As such, the contest serves as not only a way to celebrate the scene's achievements, but a vehicle with which to promote them. In recent years, the contest's top prize has been taken by hacks such as *Metal Sonic Rebooted*, which extensively converts *Sonic 2* with new levels, items, graphics and music, and *Sonic 3 & Knuckles Battle Race*, which adds a robust competitive mode to the main game.

So with years of the contest behind him now, what is it that makes Spanner want to come back each year? "I usually like to see something submitted that we don't know anything about," he says. "What can be the case is that there are people that have been working on things for years, and they finally reveal themselves to the public. That's what happened with *Sonic 2 Advanced Edit* last year – that was a hack that was last released in 2008." That massive gap between releases makes it a rarity, as more often than not a project of that vintage would be assumed to be abandoned. Indeed, many ROM hacks never see completion. "There comes a time that people had a lot of free time and then real life happens – they start working, and stuff happens with themselves,



» Really advanced ROM hackers get to look at assembly code instead. Here's an intoxicating example from *Sonic The Hedgehog*.

TERRACRAFT

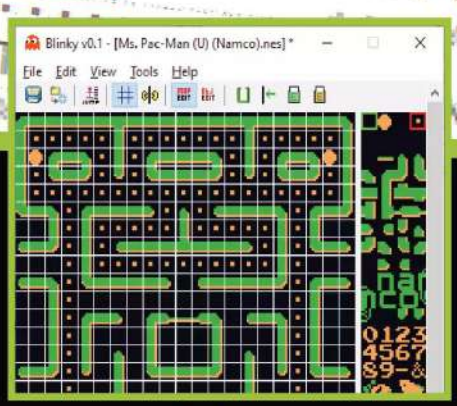
terranigma.be/index.php?title=TerraCraft

■ If you fancy yourself an RPG designer, this *Terranigma* editor gives you massive control over the game, and even allows you to use an expanded ROM to create some truly massive hacks.

QUARRY

romhacking.net/utilities/152

■ Fans of action puzzlers should check out this tool, which allows you to edit stages in the NES version of *Boulder Dash*. It's a very old tool now, but still works on modern versions of Windows.



BLINKY

romhacking.net/utilities/393

■ Did you ever feel like *Ms Pac-Man* needed more mazes to explore? If so, this editor for Namco's NES version of the game – *not* the Tengen one – will let you make some yourself.

HOW TO TRANSLATE A GAME

SUPPER WALKS US THROUGH THE LIFE CYCLE OF A TRANSLATION HACK

1 FIND A GAME

"This is often the most difficult step. Is the game too long? Too short? Too boring? On a console that's difficult to hack? If the game's technical characteristics mean none of the translators I know are going to be interested in it, I'm probably not going to bother with it in the first place."

2 EXTRACT THE SCRIPT

"This usually involves an initial round of disassembly work to figure out where the game stores its resources and what formats they're in. Though the text is normally the main focus, any non-textual resources needing translation (graphics, voice acting, FMV) also have to be accounted for. All of these need to be converted from their native format to something usable by a translator."

3 ORGANISE THE SCRIPT

"Japanese is a 'high-context' language where the meaning of a given sentence or phrase can vary wildly depending on the circumstances it's used in. Ideally, everything in the script the translators receive would be labelled with its intended use, but it's rare to see that in fan translations. Fan translators are often just left to guess the context or, if they're really dedicated, pull up a walkthrough on YouTube and work from that."

4 HACK THE GAME TO USE THE ENGLISH CHARACTER SET

"This is where the second and typically largest round of disassembly/programming occurs. In most cases, the big difficulty here is finding a way to adapt the font from the natural monospacing of Japanese to the variable spacing normally used in English. Failing to account for this results in painfully wide fonts and lack of space for long words. Unfortunately, going from fixed to variable width usually requires retooling the entire text-printing system."

5 PUT THE TRANSLATION IN THE GAME

"While you'll already know where and how everything is stored from having extracted the script, Japanese is simply a more compact language than English, and as a rule of thumb the translated text will usually be about twice as long as the original. Typically, the game is either expanded with more ROM to put the new text in, or a compression system is added so it can fit in the same space as the original."

6 PLAY THROUGH THE GAME

"This is when you fix anything that needs fixing. Typical changes are widening menus to fit more text, switching dynamically generated messages from the Japanese subject-object-verb order to English's subject-verb-object, finding ways to shorten names that are too long to be displayed on-screen, and doing spot translations on bits of text that were missed in the initial script dump."

7 TEST A WHOLE, WHOLE LOT

"Once you think you're done, you probably aren't. This usually involves iterating over the previous steps several times to deal with rarely seen messages or edge cases. One common foible is that hacks are frequently developed on emulators that don't correctly simulate all the quirks of a real console, which can lead to writing subtly bugged code that works fine on an emulator but glitches or crashes on an actual machine."

8 RELEASE THE TRANSLATION!

"These days, there aren't many games left that are in such demand that translating them will make you famous, but bask in whatever glory you can get. Months later, after you've forgotten everything about the game, someone will complain that it glitches when played on a real console, and you then get to spend several hours attempting to remotely diagnose and blindly fix a bug you can't see. If you're lucky, you'll even get to repeat this several times."

[PSP] Despite the series' recent revival, a fan translation remains the only English version of *Valkyria Chronicles 3*.

and they just don't have time to commit to stuff like *Sonic* hacks anymore," Spanner explains.

Of course, not every ROM hack is designed to ostensibly improve the experience – there are deliberately cruel and frustrating hacks out there. The infamous *Kaizo Mario World* series of hacks feature outrageous level designs that are not only difficult but frequently involve unfair trial-and-error solutions. Alternatively, you can mess with mechanics – *Sonic The Hedgehog: OmoChao Edition* satirises the handholding of modern games by freezing the action to display unskippable tutorial messages every time you interact with an object. But even these nightmarish experiences hold appeal for some players, for whom any twist on the familiar is welcome. "People are used to going through these levels in 30 seconds and everything, but for this one you have to avoid it or you're going to get these pauses and these messages, and all that stuff. So there's always interesting concepts," highlights Spanner.

But not every ROM hack is born from wanting a new way to experience a firm favourite – some come about because players *haven't* experienced the basic game. A famous early example of this came in April 1997, when the translation group RPGe started work on a fan translation of *Final Fantasy V* after growing frustrated with Squaresoft's lack of interest in localising the game. After 14 months, it had a fully playable patch ready, with a final version to fix spelling errors following in October 1998. It was a landmark release that kicked off a wave of fan translations, and they remain a popular reason for ROM hacking to this day – and unlike other ROM hacks or utilities, they're almost always a team effort. Supper points out that this is because it's rare for one person to possess both the technical skills and bilingual fluency required to complete the task alone, so he works with a translator. "In all the translations I've done to date, I sent the script to the translator as a plain text file or spreadsheet. After getting back the translated text, I inserted it into the game using purpose-built tools I wrote, then handled any special formatting or additional editing myself. It's about as simple and informal as you can get, but it's more than good enough for a lot of projects!"

» [Mega Drive] ROM hacker Cinossu's masterful move was to make the tune accompanying OmoChao's messages increase in pitch with every trigger.

» [Saturn] Dialogue-heavy games like *Sakura Wars* require mammoth efforts to translate, especially given that nobody's getting paid.

» [PlayStation] Does it make sense for Gon to have the Devil Gene? Nope, but an intrepid *Tekken 3* hacker decided it needed to be done.

Achieving a high-quality translation is just as much a programming problem though, as the coding drives a game's use of language. "One problem that crops up frequently is that, unlike English, the Japanese language doesn't have a fundamental singular/plural distinction," says Supper. "This comes up a lot in RPGs. Many games will tell you 'killer rat appeared!' whether there's one killer rat or a dozen of them, because in Japanese the same sentence is valid for both cases." With Japanese being the most common original language of fan-translated games, and a language that shares no roots with English, these problems are frequently encountered. "In Japanese, if you find an iron sword, the message is basically just, 'Found iron sword!' It doesn't matter if it's *an* iron sword or *the* iron sword – that's an English peculiarity. Correctly deciding 'a' versus 'an' further confounds things, since it's determined on a case-by-case basis from the pronunciation of the modified word. And then you also have to account for capitalisation – the article needs to be upper case if it's at the start of a sentence, but lower case otherwise. Not a single one of these concepts even exists in Japanese, and adding them into a translation is always a fun headache."

Of course, there's only so far that ROM hacking can go, as only the most popular series get much attention. Even then, effort tends to be concentrated on the most beloved games within a series – for example, you'll find many more hacks of *Super Metroid* than *Metroid II*. Additionally, the rom-hacking scene still operates on the fringe of gaming, and there's no guarantee that your work will even be allowed to see the light of day. "Sega, they leave us alone. I'm not saying they endorse it or anything, but [the contest] has been around since 2002 and they've never kicked up about it," says Spanner, who recognises that this is entirely at the company's discretion. "If you look at Nintendo, you know what they're like, trying to take things down." Indeed, the company issued cease-and-desist letters to shut down *Pokémon Prism*, a promising hack of *Pokémon Crystal* that spent eight years in development before its forced cancellation in 2016.

All the same, the scene has had some effect on the mainstream gaming culture, too. Retro-Bit actually licensed the *Aeon Genesis* fan translation of *Magical Drop 2* for its *Data East Classic Collection* cartridge, and Sega allows fan mods on the Steam versions of its Mega Drive releases. And for all of the disdain Nintendo shows for ROM hacking, would the *Super Mario Maker* games exist were it not for Lunar Magic – and if they did, would they be filled with Kaizo levels? We couldn't say for sure, but we know for a fact that we'd never have seen *Sonic Mania* without that scene, as Sega famously hired ROM hackers and fan game creators to make it. And hey, if there's one thing that ROM hacking has taught us, if you're waiting for a corporation to deal with your question, you're wasting time you could be spending creating your own answers. ✱

» [Mega Drive] *Street Fighter II: Special Champion Edition* was considered a good conversion upon release in 1993.

» [Mega Drive] The ROM hack *Street Fighter II: Remastered* redraws the background graphics to bring them closer to the arcade game.

"Hacked" font by David Gheau, http://bit.ly/WatchDogsFont

» [PlayStation] The game's prioritisation of aggression meant that attacks which hit multiple enemies were very valuable.

THRILL KILL

This four-player brawler had plenty of brutal beatings to offer, but ultimately fell victim to its own murderous ambitions **Words by Nick Thorpe**

IN THE KNOW

» **PUBLISHER:** PARADOX DEVELOPMENT

» **DEVELOPER:** VIRGIN INTERACTIVE

» **SYSTEM:** PLAYSTATION

» **DUE FOR RELEASE:** 1998

» [PlayStation] *Thrill Kill*'s four-player fighting was a key selling point, even when the engine and content were separated.

Ahead of its planned release, *Thrill Kill* was described as "dark, nasty, freakish and just plain wrong". But this assessment wasn't offered by some tabloid hack or a rent-a-quote backbench MP – these were the words of the game's producer, Harvard Bonin, speaking to *Official PlayStation Magazine*. The magazine itself described it as "the most filthy and depraved fighting game ever created". However, underneath an exterior that was engineered for maximum controversy, Paradox Development was trying to do some pretty ambitious things with the fighting genre.

» [PlayStation] Tied-up oddball, erm, Oddball demonstrates the game's violence by punting Belladonna's head clean off.

Thrill Kill was designed to be the PlayStation's first four-player 3D fighter, though it was ultimately pipped to the post by Acclaim's *WWF War Zone*. This took considerable work to achieve – apart from having twice as many characters on-screen as the likes of *Tekken*, the game required full-3D arenas and a number of game design adjustments. "The multiplayer thing really screws up a lot of two-player standard conventions," noted Harvard. "How do you face characters, etc?" One major thing that the game did was to change the player's relation to damage. "We felt that fighting games have always inherently promoted defensive postures," Harvard explained. "We wanted to promote in-your-face aggression in *Thrill Kill* so we reversed it and decided to reward the player for successfully executing attacks." This meant that three characters ganging up on one was not an effective strategy, as the benefits were divided between the attackers – instead, players needed to concentrate on landing attacks whenever possible to build up a 'Kill Charge' attack, which would eliminate its recipient.

Of course, ultraviolent fighting games were nothing new – *Mortal Kombat* and a wave of mid-Nineties copycats had actually made decapitations and dismemberment seem rather tame. Indeed, characters like Tormentor and his 'Draw And Quarter' move would have been right at home there. More extreme were the cannibalistic tendencies exhibited by the limb-wielding redneck Cleetus, who ate victims' faces and drank their blood. However, the biggest differentiating factor that *Thrill Kill* exhibited was the sexualisation of the action, as the game included some

FIND YOUR THRILLS SOMEWHERE ELSE...

WU-TANG: TASTE THE PAIN

1999, PARADOX DEVELOPMENT

■ If you want to try the *Thrill Kill* engine without trying to track down a prototype, you can do that here. Rather than determining eliminations with a Thrill Kill, this game uses a more conventional system with a health bar and three lives.

POWER STONE 2

2000, CAPCOM

■ While it shares almost nothing with *Thrill Kill* thematically, the four-player 3D combat here is vaguely similar. However, extra hardware power allows it to be faster and more chaotic, with more interactive and imaginative stages.

MORTAL KOMBAT

2011, NETHERREALM STUDIOS

■ If you just need to see some blood and guts, the old master *Mortal Kombat* is still doing that job as well as anyone could possibly want. This is a retelling of the original trilogy, and its grisly executions make *Thrill Kill*'s primitive polygonal punishments seem tame.

» [PlayStation] Between the costumes and some of the moves, the sexualised nature of the violence proved too much for EA.

considerable BDSM influence in both its costumes and its moves. Indeed, Belladonna's 'Crotch Crush' and Violet's 'Miner 69er' were highlighted as favourite moves by Harvard.

Thrill Kill was so close to release that it had even been submitted for rating by America's ESRB, which classified it Adults Only 18+ – a rating that was almost exclusively given to games featuring explicit sexual content. The team had clearly hoped for the Mature 17+ rating, and hitting the higher one was particularly undesirable as it meant many stores would refuse to carry the game. Despite the inevitable controversy, Virgin Interactive was willing to go ahead with publishing the game, and a release date was set for October 1998. However, the decision was soon out of Virgin's hands, as Electronic Arts acquired the American operations of Virgin Interactive as part of its purchase of Westwood Studios in August 1998.

EA was far more conservative than Virgin had been, and the game was cancelled swiftly. Speaking to *ZDnet* in October 1998, EA's director of corporate communications Pat Becker explained: "The decision was made as soon as we could make it after we acquired the company. From the time that the deal was closed to the time that decision was made was a couple of weeks." The reason was simple – the company felt that "the tone and the tenor of the game are just too violent", with Pat Becker framing it as an issue of corporate responsibility, stating, "We have to be responsible for the content that we make available to the marketplace. We felt that this was not the kind of title that we wanted to see in the market." There was no hope of a reprieve either, as EA confirmed that it would not sell the game to another publisher. Never mind that it was essentially complete – *Thrill Kill* was dead.

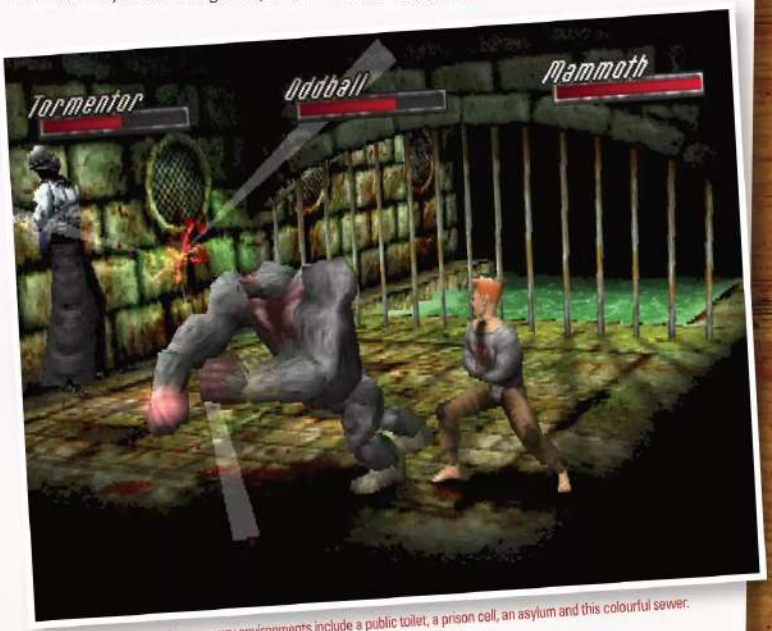
"We wanted to promote in-your-face aggression in Thrill Kill"

Harvard Bonin

» [PlayStation] She's just tickling his feet – but let's just say that's not what the initial camera work suggests.

» [PlayStation] This red glow means The Imp's built up his kill charge – now all you can do is avoid him.

However, *Thrill Kill* took after its fighters, refusing to let death keep it down. Though Paradox Development's work on characters and settings was essentially lost, the studio was at least able to salvage the engine to create *Wu-Tang: Taste The Pain*. This 18-rated licensed brawler was released by Activision in late 1999 and retained the four-player action with some gameplay modifications, allowing the rappers to do battle with each other and a range of fictional fighters. It received good scores from the press, earning 86% in *Play* and 8/10 in *Official PlayStation Magazine*, with the latter praising it for "atmospheric graphics, delicious combos and outrageously violent end sequences". But what of *Thrill Kill itself*? Well, the game had been leaked and was freely circulating online within weeks of its cancellation, with a move list and FAQ already doing the rounds on newsgroups by the end of October 1998. It's fair to say that EA's plan to ensure that it never saw the light of day was a miserable failure, then – and if you want to judge whether the publisher's moral queasiness was justified, you can find out for yourself without too much effort. ✱



» [PlayStation] The game's unsavoury environments include a public toilet, a prison cell, an asylum and this colourful sewer.

THE MAKING OF PaRappa The Rapper™

Come on now, why don'tcha follow these words? PaRappa The Rapper is here and it could be much worse. Masaya Matsuura and Rodney Greenblat thought they'd have a nice chat. One of them was chattier, so let's hear more about that...

Words by David Crookes

IN THE KNOW

- **PUBLISHER:** SONY COMPUTER ENTERTAINMENT
- **DEVELOPER:** NANAON-SHA
- **RELEASED:** 1996
- **PLATFORM:** PLAYSTATION
- **GENRE:** RHYTHM ACTION

First comes the kick! "My policy for accepting interviews is whether the interviewer asks new questions that have never been asked before." Now comes the punch! "It seems there are no new questions – all have been rejected." This is our opening experience with Masaya Matsuura, creator of *PaRappa The Rapper*. And we have a strong feeling things were going to get rocky. Chop! "If you ask three more questions that I will not answer, this interview game will be over," he affirms. Block! "NNQ3," he warns. "That means 'Not New Question'."

We pause out of fear of pressing any more wrong buttons, but there's a sense of fun in Matsuura's approach. He calls it the 'interview game' and goes as far as suggesting **Retro Gamer**'s article starts from this episode. He also wants the questions posed via Facebook Messenger, requires them to be numbered and even renumbers a second set of queries because they didn't follow on from the first. "Don't do relative," he says. "Absolute number is needed."

At one point, we have a break. "I'll take a shower and sleep, sorry," he explains. But he adds: "I'll be able to answer other questions." We think he's warming to us but we don't want to get cocky. After all, we're keen to discover more about his iconic six-stage game, development of which got underway in 1994 for the original PlayStation console.

PaRappa The Rapper was Matsuura's first proper venture into videogames. As the founder of the Japanese progressive pop/rock band PSY-S, he produced a string of hits spanning the Eighties and Nineties – an era when the music video was truly in its element thanks to MTV.

DEVELOPER HIGHLIGHTS

VIB-RIBBON
SYSTEM: PLAYSTATION
YEAR: 1999

TAMAGOTCHI CONNECTION: CORNER SHOP
SYSTEM: NINTENDO DS
YEAR: 2005

HAUNT (PICTURED)
SYSTEM: XBOX 360
YEAR: 2012

[PlayStation] The aim is to keep rapping by pressing the correct buttons, keeping an eye on how well you are doing while racking up the scores.

In the middle of that second decade, he created the production studio NanaOn-Sha and began experimenting with ways of making his music interactive. He became the first Japanese musician to make use of CD-ROM when he released a Mac adventure featuring his songs called *The Seven Colors: Legend Of PSY-S City*. And he'd worked on the simulation *Turnin'Glue* which allows players to use instruments and mix their own music.

P*aRappa The Rapper* was more ambitious, however, and there was a debate from the start over whether it could actually be deemed a 'game'. The idea was that players would keep up with the beat by following button icons rolling along the top of the screen.

The final product is easy to pick up yet tricky to master, and it's driven along by some of videogaming's most catchy tunes. After pitching the concept to various companies, Matsuura found Sony to be the most enthusiastic and production got into full swing. By that point, he'd decided that rap would be the most suitable music to use. Development of the title would also enable him to see music from a different angle – for this was a game in which the tunes had to resonate with as wide an audience as possible because songs that proved annoying would have killed the game stone dead.

"Creating, composing, designing and producing are all subjective in some ways and they bring their own annoying risks," he tells us as – duck! – we squeeze a follow-up question through his strict filter. "The music will still be annoying to someone but, if I worried about this, then I wouldn't have been able to create a game such as *PaRappa The Rapper*."

[PlayStation] Rodney Greenblat created and named a host of great characters including Inspector Mooselini, Prince Fleaswallow and Cheap Cheap The Chicken.

Matsuura thought hard about what he wanted from the game and how he could incorporate a scoring system to best incentivise the player. He'd already begun playing around with voice samples on his Mac and getting them to play to a rhythm, and he was also receptive to outside help, forming a working relationship with rap artist Ryu Watabe and writer Gabin Itou.

Itou wrote the story which provided context for each stage. This would be handed to Matsuura who would storyboard the cutscenes, leaving Watabe to experiment with freestyle raps and lyrics based on Itou's Japanese writing. The dialogue and the backstory soon came together and, as artist Rodney Greenblat explains, "They already had a rough idea of the game's direction when I joined the team."

Like Matsuura, Rodney had an interest in tech. He'd developed a game called *Dazzeloids* in which he'd introduced the characters PJ Berri, Sunny Funny and Katy Kat, and his artwork was represented by the Japanese artists' agency, Interlink Planning, which got him a contract with Sony Creative Products, a licensing division of Sony Music Japan.

"I was hired to create cute characters for the booming

[PlayStation] Cheap Cheap's Cooking Kitchen also features on an original soundtrack of 44 tracks released on CD in 1996.

Image by jontintinjordan

"Creating, composing, designing and producing are all subjective in some ways and they bring their own annoying risks"
MASAYA MATSUURA

Animating PaRappa

AN ANIME SERIES? YOU GOTTA BELIEVE

Given the colourful range of cute cartoon characters in *PaRappa The Rapper*, it was only a matter of time before television bosses sought to create an animated series. Sony worked with the animation studio JC Staff and SME Visual Works to create 30 episodes. These were aired on the Japanese station Fuji TV between 14 April 2001 and 11 January 2002.

Music was composed by Masaya Matsuura, Yoshihisa Suzuki and Yasushi Kurobane but PaRappa rapped just once. Rodney Greenblat wasn't asked to contribute beyond designing some new characters, even though he wanted to get involved with its production and work on some scripts. Rodney was asked to concentrate on *PaRapper the Rapper 2* instead. He was also annoyed that the series was aimed at children rather than teenagers.

The season didn't fare well, but in 2016, another anime series was announced: *PJ Berri No Mogu-Mogu Munya-Munya*. "Japan Interlink Planning was able to get Fuji TV to make some funny short animated segments featuring PaRappa, PJ and Master Onion," Rodney tells us, of the series of 96-second episodes. "We were really hoping giant Fuji TV would bring a whole new series to life, but it did not happen."

PORTABLE PARAPPA

THE RAPPING PUPPY MADE A RETURN

In 2006, Masaya Matsuura celebrated the tenth anniversary of *PaRappa The Rapper* by releasing a version for the PlayStation Portable. It featured the same characters, levels and songs of the original game and allowed up to four players to rap in ad-hoc head-to-head battles, competing to get the highest score. It was also possible to share a demo level and enjoy a downloadable selection of remixed tunes.

Matsuura also wanted to add a new song called *Believe In Yourself* but development time didn't allow it. As such, the game soon felt its age, even though the graphics benefited from a small amount of smoothing. It didn't fill the PSP's screen, and it was more difficult to see the two rows of button icons that the player needed to look at in order to know what to press.

But the songs stood the test of time and they remained as memorable as they ever did some ten years on. Consideration was also given to creating a version for the PlayStation Vita. Matsuura said he preferred to bring the game to handhelds for latency reasons, although its next outing was another remaster for its 20th anniversary on the PS4, based on the PSP version with graphics of up to 4K resolution.

mascot business in Japan around 1995, and while I was in Japan, I was asked to meet a group creating a game for the original PlayStation. Matsuura and his team were already fans of my artwork so it was very easy to start working with them," he says. The team was based at the corporate offices of the recently formed Sony Computer Entertainment.

"They worked in a brand-new, high-tech building and the offices were very sparse with just computer workstations," recalls Rodney. "Sony Creative Products, where I spent most of my time, was much more fun. It was cluttered with design materials and lots of character toys and mascots on their workstations"

The team experimented with flat 3D character animation. This led to *PaRappa The Rapper*'s unique style in which the colourful cartoon characters became paper-thin 2D creations set against backgrounds with 3D depth. Rodney was able to let his creative juices run loose. "I was given a lot of freedom because Matsuura's group loved my artwork," he says.

PJ Berri, Sunny Funny and Katy Kat were brought over to the project and used as a guide. The game's hero became PaRappa – a cartoon dog sporting an orange hat, purple top and pair of snazzy red trainers (the initial idea was to make the character a shrimp).

"My process was to give the team sketches with lot of ideas to choose from," Rodney says. "Matsuura and the writer Gabin Itou had some ideas about the personalities of the characters before I made the sketches and they would let me know these rough personality traits.

"This was a great way for me to start the designs and the fun part was that if my sketches didn't exactly fit, or if I had another idea, they were totally open to it. They told me the main character was ever-loyal and always trying to impress his elusive girlfriend. It made me think of a small dog that always follows along and that's how the PaRappa character was started."

Rodney also worked on PaRappa's aforementioned love interest (a humanoid flower called Sunny Funny) as well as the game's many other characters including Chop Chop Master Onion, Instructor Mooselini, Cheap Cheap The Chicken and a frog shop salesman

[PlayStation] Rodney Greenblat lent his artistic talents to a series of cutscenes which linked the rap stages of the game.

[PlayStation] In the fifth stage, all of the teachers are involved, including Inspector Mooselini discussing PaRappa's stomach ache after eating cake.

called Prince Fleaswallow. They were drawn in such a way that the characters would pretty much disappear when they turned to the side. It lent the game a heap of charm.

In some ways, Retro Gamer's interview with Matsuura is running along similar lines – our opportunity to ask him questions was also vanishing at each wrong turn. "What games did you love playing growing up?" we ask. "NNQ2," comes the response. One more awful question like that and it's game over. At least being branded awful at rapping in *PaRappa The Rapper* would afford the player another chance. Here there would be no coming back.

But how were those songs created? Matsuura says he followed his experience in knowing what would work. "The songs were not perfect," he confesses. "None of my compositions are." Yet the key thing was ensuring the tunes dovetailed nicely with the flow of the game.

"Gameplay and composition were not two different things with *PaRappa The Rapper*," Matsuura continues, adding that he also had assistance from artists who created DJ-type songs. "But the limitations of the game mechanism were huge obstacles when considering the musical aspects."

Foremost in his thoughts, he adds, was 'imagination' and it appears he wanted to unlock the creativity in the mind of the player, too. "Someone may like to press the buttons in the order they appear on screen but, for me, the most important thing was that the player would feel the rhythm. It may be like a primitive language but it remains in our DNA."

To this end, Matsuura felt players needed to feel a freedom of expression rather than aim for perfection. There was a Cool mode which allowed for a spot of freestyling and removed the guidance of the instructor. It's fair to say that most players would be simply content with sticking in the Good mode, though, trying hard to avoid slipping to Bad or Awful.

The soundtrack was created using samplers rather than MIDI synthesisers. "I don't like MIDI," Matsuura asserts. "For the first ten to 15 years, hardware MIDI was really vulnerable and we had so many troubles during concert tours and recordings in the Eighties." Watabe, who had worked as an interpreter for CNN, produced amazing lyrics (PaRappa's catchphrase "I gotta believe" was going to be used for his own album). He also sang, voicing all of the characters in the initial practice recordings before other musicians were brought on board.

[PlayStation] Some of the button presses are tricky so you really have to keep your wits about you.

[PlayStation] PaRappa was named by Masaya Matsuura and it's a play on Japanese words meaning 'paper thin'.

[PlayStation] Prince Fleaswallow is a frog who works at the flea market.

[PlayStation] Chop Chop Master Onion appears in the first stage. His lyrics forever struck a chord.

[PlayStation] The final song takes place in Club Fun where MC King Kong Mushi and four other teachers appear on stage.

> "We were just enjoying the freedom and I think Sony really trusted Matsuura. I'd also say there is no way this game could have been created outside of Japan"
> RODNEY GREENBLAT

"His most famous was as Chop Chop Master Onion, and his collaboration with Matsuura was an awesome combination," Rodney adds. Watabe would listen to a music track, rap in real time and record, then take it home, listen and make the necessary adjustments, passing the results back and forth with Matsuura.

That said, Matsuura's task was not purely focussed on the tunes. "I didn't divide my brain between music and making the game and I can't divide or compare the priorities of my role." What emerged, however – after two and a half years of development – was gaming's first musical adventure.

"Were you fearful that the game wouldn't sell and were you surprised that it did?," we ask. "NNQ1 so it is over," he replies. Damn! Although he admits that it was a risk. Just 30,000 copies of the game sold initially in Japan but then word got out. It shifted 761,621 units within a year and went on to sell 1.4 million. Matsuura decided to enter into the gaming industry full time and he disbanded PSY-S.

Rodney affirms the team never imagined its game would have a huge impact. "We had no idea whether the game would be a hit and no clue as to whether it would establish a new genre," he says. "We were just enjoying the freedom and I think Sony really trusted Matsuura. I'd also say there is no way this game could have been created outside of Japan."

In 1999, the team created the spin-off *Um Jammer Lammy* with a focus on guitars. Two years later, *PaRappa The Rapper 2* was released for the PlayStation 2, and the original made a remastered comeback on PlayStation 4 in 2017.

Unfortunately, we may never see a new version. "I have not been able to get Sony interested in making a new *PaRappa* game," laments Rodney. But he remains hopeful. "To all fans of the game, keep sharing your love, keeping making fan art and keep *PaRappa* alive in that way and thanks so much for your many years of support." After all, we gotta believe!

THE MAKING OF Moon

REMIX RPG ADVENTURE

As Japanese RPGs were breaking into the mainstream in the PlayStation era, one of the genre's most influential and subversive titles never left Japan, until now. Yoshiro Kimura joins us to discuss the influences and impact of making an unheroic 'anti-RPG'

Words by Alan Wen

IN THE KNOW

- **» PUBLISHER:** ASCII ENTERTAINMENT
- **» DEVELOPER:** LOVE-DE-LIC
- **» RELEASED:** 1997
- **» PLATFORM:** PLAYSTATION
- **» GENRE:** RPG

DEVELOPER HIGHLIGHTS

LOL: LACK OF LOVE
SYSTEM: DREAMCAST
YEAR: 2000

CHULIP
SYSTEM: PS2
YEAR: 2002

LITTLE KING'S STORY (PICTURED)
SYSTEM: WII
YEAR: 2009

Alongside rival studio Enix, Square was one of the titans of the RPG in Japan. It's also where game designer Yoshiro Kimura first learnt the ropes of game development, describing himself back then as "a little punk with no knowledge of how the world worked".

"The most important things I learned were from my senior colleagues," he explains. "The way they approached their work in earnest, their focus on what they were creating, and their ability to work tirelessly at game development." While at Square, he cut his teeth on the *Romancing SaGa* series in map production and combat design. But his time there also taught him that he wasn't suited to existing within a large group, and he admits he had considered escaping videogames altogether. It's perhaps no surprise that in 1995, when fellow coworker Kenichi Nishi left with other Square staff to found Love-De-Lic, Kimura was among the defectors.

The studio's debut, *Moon: Remix RPG Adventure*, is arguably its most influential title, incidentally released the same year as *Final Fantasy VII*. It's almost timely that a landmark for the JRPG would be followed up by a game from former Square staffers that completely subverted the genre's tropes and conventions, leading to *Moon*'s reputation as an 'anti-RPG'.

Kimura clarifies that 'anti-RPG' was a term the fans came up with rather than anyone in the team. "Having said that, a lot of us came from Square, so we did always have this sarcastic way of looking at RPGs," he adds. "We would often talk about why the hero would always be stealing from people in the towns. RPGs were our day-to-day work. We spent so much time with them that when we got to lunch, we'd be complaining about the company and RPG tropes in a way that was difficult to discern whether we were joking or not. I think those conversations were actually good brainstorming sessions."

The holes poked in the genre occur right from the beginning when your protagonist is playing the game of 'Moon' on his TV. It's a parody of many NES and SNES RPGs where your hero knight goes around slaying monsters,

» Despite credits in *Devil May Cry 5* and *No More Heroes 2*, Kimura remains one of Japan's most consistently idiosyncratic indie developers.

» [PlayStation] You can program your own background music playlist using MoonDiscs (MD), many sold by audiophile Burrn.

"WE WOULD OFTEN TALK ABOUT WHY THE HERO WOULD ALWAYS BE STEALING FROM PEOPLE IN THE TOWNS"

YOSHIRO KIMURA

» [PlayStation] The 'Fake Moon' game features locations and characters that will be familiar once you fall into its world.

levelling up and ransacking NPCs' cupboards that culminates in a fight with a dragon – only to be cut short by your mother who tells you to turn the game off and go to bed. Instead, you're sucked into the TV and fall into the world of Moon itself, where the story takes a new twist.

This world has another hero on a similar quest, yet something's off about their appearance, reinforced by the ominous music whenever they appear. It's soon apparent that they're just going around murdering all of the world's innocent monsters, becoming more powerful and unstoppable. Your own role in this adventure isn't to stop this hero per se but to restore what they have destroyed. Here, you level up by talking to and helping people.

When virtually all RPGs have been defined by their battle systems, that *Moon* featured no killing at all was revolutionary. Kimura personally downplays this, viewing that this has been a natural dialogue between RPGs over the years. "As a child, I was brought up on *Ultima* and *Wizardry*," he says. "I still have vivid memories of *Ultima 3, 4, 5* and *6*, and I particularly recall thinking, 'RPGs are amazing!' when I saw you couldn't finish *Ultima 4* without learning the Eight Virtues. I believe these two series gave birth to JRPGs like *Dragon Quest* and *Final Fantasy*. And we, in turn, were influenced by JRPGs to make *Moon*. It's almost like a game of catch across time and space."

Moon threw off other constraints of the genre, too. The world of Love-De-Gard is yours to freely explore, many of the quests being nonlinear or optional. There's a refreshing, albeit perhaps daunting, lack of hand-holding, allowing you to take your time to get to know the world and its charming denizens.

Your protagonist manages to be memorable in his own right, which is ironic given that he's invisible for the majority of the game. "Our take on this was that players should find it easier to empathise with an avatar who doesn't speak," explains Kimura, adhering to the traditionally silent avatar as opposed to games like *Final Fantasy* that were giving heroes their own identity and lines. "That philosophy led to the conclusion that a silent hero doesn't need

» [PlayStation] The queen appears in your dreams, levelling you up based on the love you gathered that day.

» [PlayStation] The boy becomes invisible to virtually everyone in Love-De-Gard, until he's given some clothes from the world.

MEET THE CAST

THE FIRST OF MOON'S MANY DELIGHTFUL DENIZENS

THE HERO

■ Not quite the knight in shining armour. You'll run into them throughout the game, mercilessly slaying the world's creatures and leaving their corpses in your wake, while getting stronger over time. But just who is this so-called hero underneath that armour?

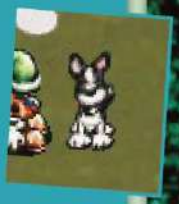
GRAMBY

■ This little old lady is especially helpful to you at the beginning, giving you clothes, a roof over your head, pocket money and some tasty cookies. How lovely! She might also have you confused with her own son, whose whereabouts are unknown.

THE KING

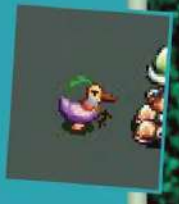
■ The laid-back ruler of Love-De-Gard likes to introduce himself with his business card, a practice that's been passed onto the rest of his subjects. Besides plans for space exploration, he's also fond of watering his animal plants.

TAO



■ Gramby's pet dog who'll definitely relieve himself on you on a few occasions. You can train him to do tricks, provided you have the bones to bribe him. He also has a secret spot he likes to sneak off to at night.

YOSHIDA



■ This bird hangs around in the town square and comes in handy if you need some tips at the start of the game. He operates his own travel agency on the side, if you're looking for an island getaway.

WANDA

■ By day she's asleep at the bar, but at night, Wanda's is the place to go when you're in need of a drink or some gossip. Head there on certain nights and you might bump into some off-duty patrons.

REMIXING MOON

EVERYTHING YOU NEED TO KNOW ABOUT THE SWITCH PORT

Dropping the subtitle and capitalisation, *'moon'* finally made its way to western shores on Nintendo Switch published by Kimura's own Onion Games.

According to an interview with *Vice*, the port was a result of a few miracles that came at the right time, not least the approval from both former members of Love-De-Lic and a producer from Kadokawa (which acquired publisher ASCII in 2004), and the rediscovery of the original code on a hard drive thought to have been lost.

moon is essentially a perfect port of the original game, its charm wonderfully translated by games journalist Tim Rogers, who previously collaborated with Onion Games with the localisation of *Dandy Dungeon*. Kimura says, "Our aim was to retain the original game's nuances, so players could experience something as close to the original as possible." The only change being that all the MoonDisc (MD) tracks, which were monaural on PlayStation due to CD storage constraints, are now all available in stereo.

As a faithful port, however, modern audiences are in for a tough time with the obtuse design of late Nineties JRPGs, where hints and quest markers were nonexistent. First-timers unaware of the Action Meter will no doubt be confused when they pass out and get bumped straight back to the title screen. True to its time, *moon*'s mechanics make more sense once you read the instruction manual, which fortunately has also been translated and made available online to download. Even then, some later memory-based puzzles will truly test your patience. It's a shame that there wasn't a way to make these sections more accessible, but there is one advantage to having the game on Switch – by exploiting the system's video-capture function, you'll at least be able to check back on some of these devious puzzles in your own time.

» [PlayStation] Can you catch 'em all? The first few monster souls are quite straightforward, but finding the rest gets much trickier.

That loving design is extended to every character, too. While *Moon* incorporates 2D sprites on top of prerendered backgrounds typical of early PlayStation RPGs, there's another peculiar artistic choice where the creatures have been made from clay models before being digitally scanned into the game. The hero hasn't just slaughtered any generic creatures (even though, in a sly nod, the first of their victims closely resembles the many expendable Slime enemies from the *Dragon Quest* series) – there's over 50 unique monsters which can be saved by catching their souls before a UFO-flying Octopus swoops in to beam the resurrected to safety.

Just like the monsters' souls, the characters of *Moon* also have their own routine in the world. The game operates on a day/night cycle with a seven-day week (albeit with its own names and symbols you need to get accustomed to), which then affects where characters might be at any time. You might meet Flora the girl who tends to a flower shop in town in the daytime but when night falls she returns home above Wanda's bar to go to bed, while a robot you see on cleaning duty at a secret underground lab has days off where it's just resting in its apartment.

> "ONE DAY, TOBY FOX ASKED ME WHY I WASN'T RELEASING MOON IN THE WEST. EVEN THOUGH AT THE TIME I TOLD HIM IT WAS IMPOSSIBLE, HIS ASKING WAS THE SEED WHICH GREW IN MY MIND, AND HELPED ME REALISE THAT I COULD DO IT, IF I WANTED TO"
>
> **YOSHIRO KIMURA**

That each character in this little world is living their own life and not waiting solely on your interaction feels incredibly ahead of its time two years before a title like *Shenmue* boasted of a realistically simulated world. The fact that each of them has some kind of quest linked to you makes the gameplay almost reminiscent of *The Legend Of Zelda: Majora's Mask*, even more so when you factor in the time limit imposed on you.

Or more correctly, the Action Limit, nonetheless measured by a clock on the top-left corner of the screen. When the marker on the outer perimeter is red and starts flashing, that's when you start getting tired and walk more sluggishly. Unless you eat something or go to

» [PlayStation] One of *Moon*'s messages may actually be warning the dangers of staying up late playing games for just one more go.

sleep, you'll soon run out of energy and faint, triggering a game over. It's easy to be caught out by this early on when you can barely walk from Gramby's house to the castle and back without the journey already taking it out of you. Yet, this also encourages players to interact with everyone within reach, or perhaps focus limited energy on one character before trying again with someone else. It's no coincidence that by investing in these characters or rescuing monsters rewards you with love, which is how you increase your Action Limit that allows you the freedom to explore for multiple days.

» [PlayStation] No, you can't steal from this shop, but the owner, Curio, does hawk some different, pricier wares at night downstairs.

» [PlayStation] You soon get your own house. Just be sure you're back for bedtime before you run out of energy.

"The Action Limit was our reaction to the increasingly complex and difficult battle systems of the time," Kimura explains. "It's like we were poking fun at them, and saying whatever twists we come up with, in the end it's just the same as losing your HP and dying after a set amount of time."

Moon would have difficulty competing with the grand scale of *Final Fantasy VII* in 1997. Nonetheless, its innovation and subversion of the RPG granted it a cult status and in 2000, *Famitsu* included *Moon* in its Top 120 PlayStation games of all time. Yet it was a title that would remain entirely out of reach to western audiences, despite its presence at ASCII's E3 booth in 1997 and Kimura being able to recall playing an English build. "I honestly have no idea why it was cancelled," he admits. "That build is lost to the sands of time now, and the translation with it."

» [PlayStation] This bashful rock turns red and moves out the way when you stand close to it.

Sharing the fate of many Japan-only releases (including the rest of Love-De-Lic's small output), *Moon*'s influence grew solely within niche pockets of JRPG communities, though anyone who did get their hands on it was blown away by the ways it broke RPG norms, with a review in 2006 from website *RPGFan* calling it "nearly perfect in every way". Indeed, more RPGs from the indie scene today are deconstructing the genre in their own creative and subversive ways. But an RPG without killing, and where love is your form of experience, also sounds remarkably similar to the premise behind modern cult hit *Undertale*, so it's no surprise that the creator Toby Fox confirmed this by giving credit to *Moon* on Twitter back in 2017.

Kimura fondly recalls the response on social media, and he also got to spend time talking to Toby Fox who regularly visits Japan. "During his visits here, we hung out in coffee shops, we were interviewed by the games press, and even spent four hours chatting in a cheap Italian restaurant called Saizeriya, drinking cheap wine," he recalls. "One day, Toby asked me why I wasn't releasing *Moon* in the west. Even though at the time I told him it was impossible, his asking was the seed which grew in my mind, and helped me realise that I could do it, if I really wanted to."

Over two decades later, a wider audience can finally experience *Moon*, and it only seems right that the Switch port would be from Kimura's studio Onion Games. "Come to think of it, many of Onion Games' roots come from *Moon* where myself, character designer Kazuyuki Kurashima, composer and sound designer Hirofumi Taniguchi (a member of Love-De-Lic's sound team nicknamed 'The Thelonious Monkees') started our long history of collaborating," he adds. "It's also where my game design and production sensibilities all originate from."

Kimura concedes that modern audiences might find some of *Moon*'s obscure puzzles too difficult, while its meta-satire might not stand out when meta has become more commonplace, even if not executed with the same level of wit. "But meta is only one side of *Moon*," he says. "I believe many people will discover a unique experience here – in any case, I'll be happy if players get a sense of freedom, and discover something they haven't seen in other games." ★

» [PlayStation] Fainting might not sound as grim as death, but it still means having to start from your last save.

» [PlayStation] *Moon*'s structure is nonlinear, though you'll find your progress blocked occasionally, with no clear way forward.

» [PlayStation] Admire the view, or discover a lost soul, or rendezvous with another character. It's always worth revisiting an area.

Future Classic

Modern games you'll still be playing in years to come

Info

- **System:** PC, PS4, Xbox One
- **Year:** 2019
- **Publisher:** Annapurna Interactive
- **Developer:** Mobius Digital
- **Key People:** Alex Beachum, Kelsey Beachum, Andrew Prahlow

Go Deeper

» *Outer Wilds* cleaned up at the 16th British Academy Games Awards, winning Best Game, Best Game Design and Best Music.

» *The Legend Of Zelda: The Wind Waker* provided some inspiration for the game in terms of how NPCs' descriptions of other locations would encourage you to explore.

» [PC] *Outer Wilds* often juxtaposes sci-fi with a kind of frontier cosiness.

How a group of students, a Heroes actor and a drive to make an ambitious time loop space exploration game delivered one of the best titles of 2019. Grab your spacesuit, because we're about to venture out into the Outer Wilds

Words by Paul Walker-Emig

OUTER WILDS

THE BACKGROUND

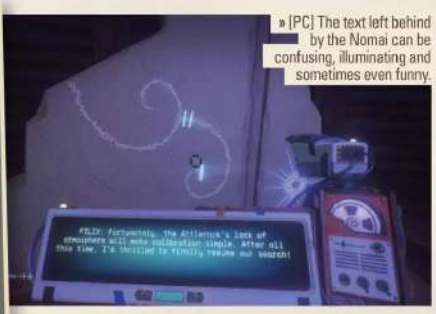
Outer Wilds may never have had the widespread critical and commercial success it achieved on release in 2019 had it not come to the attention of actor Masi Oka, best known for playing Hiro Nakamura in the NBC series *Heroes*. The game began as the student project of eventual director Alex Beachum at the University Of Southern California in 2012. He wanted to make a game that emulated the feel of space exploration as depicted in movies like *Apollo 13* and *2001: A Space Odyssey*, a game that emphasised the uncontrollable nature of space. Alex, working with fellow students, began with paper prototypes and a tabletop gaming session to start experimenting with ideas for the game's narrative. From these beginnings, the game would ramp up in scale and complexity, an early version eventually being spotted by Masi Oka at a USC event. He was impressed enough that he hired the whole team for his company Mobius Digital to continue work on the game. After netting additional funding through crowdfunding platform Fig, publisher Annapurna Interactive and a deal with Epic, the team was able to bring its vision to fruition and deliver one of the best games of 2019.

THE GAME

There are an abundance of open-world games that tout the idea of 'exploration' being a key feature, when the reality is that they are structured in such a way that you end up spending far more time chasing objective markers than you do exploring. *Outer Wilds* is a rare example of a game that *really is* about exploration. You are placed in the shoes of a rookie alien space explorer heading out on their first flight, given a rickety spaceship to set off in, and then the solar system is your oyster. There are a wealth of secrets left by an ancient alien race, called the Nomai, for you to discover, but in which order you uncover them depends entirely on your whims and interests, the game trusting you to find your own path on its multiple planets and put the pieces together in whichever order they happen to come to you.

This combination of leash-free exploration in a secret-packed solar system is enticing in itself, but

» [PC] There are some surreal places that don't play by the kind of rules you might expect in this game.



» [PC] The text left behind by the Nomai can be confusing, illuminating and sometimes even funny.

» [PC] A computer logs your discoveries, helping you get your head around what's happened and helping you decide where to go next.

» [PC] Your ship is supposed to look a bit fragile and rickety. It helps create a feeling of vulnerability that the game plays on so well.

Things of note

THE GREAT VOID

Space is a truly terrifying place to be in *Outer Wilds*. Whenever you get out of your ship mid-flight to repair a broken system or get cast adrift, you'll feel the loneliness and danger of space.

NO LIMITS

Outer Wilds is built to let you explore its planets in any way you see fit, jumping back and forth to follow whichever thread fascinates you the most.

GALACTIC BANJOS

Outer Wilds has fantastic music which is incorporated into some of its mechanics and used brilliantly at the game's climax.

DEATH AND DANGER

The game somehow manages to cultivate a sense of peril during your dangerous adventures, even though you know you will respawn safe and sound.

TIME OUT

The time loop that resets *Outer Wilds*' solar system every 22 minutes is unquestionably its headline feature, and is used in a number of clever and interesting ways.

Outer Wilds adds a twist that really sets it apart from anything else out there. For reasons not apparent at the beginning, this solar system is destroyed every 22 minutes. Your character respawns on their home planet and, unlike everyone else, can remember what came before as you begin the cycle once again. This time loop serves not only as a piece of narrative intrigue that enhances your desire to find out what the Nomai were up to and how it might relate to this strange phenomenon, but proves to be a fantastic way of enhancing other elements of the game's design. The impetus to explore that underpins *Outer Wilds* is enhanced by your knowledge that everything is going to be reset: it means there is no need to worry about how embarking on a trip to one end of the solar system will take you far away from another location you wanted to revisit. There's no time for second-guessing when you're deep in the caves of an alien planet with time ticking – you just need to press on as far as you can and see what you might discover. It is a limit that liberates, using the knowledge of repeated, impending doom to encourage you to always be pushing forward and finding new things.

The time loop also adds a unique dimension to your exploration of the solar system. Each planet has a unique aesthetic and gameplay theme that makes it stand out, showcasing a design talent that is always able to present you with surprising and invigorating challenges that include swelling tides, portals and quantum mazes. The time loop means that these locations are dynamic, changing to open up or close off possibilities depending on which point of the time loop you are at. This means you are exploring in time as well as space, environments shifting around you to open up a whole new vector with which to play, solve puzzles and search for hidden secrets.

Packed with clever and intriguing ideas, *Outer Wilds*' solar system is a brilliantly designed open world and a fascinating place to explore. It's a testament to the skill with which it has been put together that fractured pieces of narrative left scattered far and wide cohere into a compelling tale regardless of which order you discover them in, helping to make every new puzzle you solve and secret you uncover a real thrill.

WHY IT'S A FUTURE CLASSIC

There are two things a game can do that make it a pretty safe bet that it will be remembered as a classic: be exceptional, or do something original that makes it stand out from the pack. *Outer Wilds* does both.

Crafted around the principle of exploration in a way that few open-world games are prepared to commit to, *Outer Wilds* successfully makes space feel like a true frontier environment. It is just difficult enough to explore to successfully make space feel hazardous and uncaring, but makes you want to push through that feeling of vulnerability and discover what each corner of the solar system has to find, thanks to great writing and an endless array of compelling ideas. That carefully crafted balance is emblematic of a game where every element – from the story to the music, from the puzzles to the navigation mechanics – sings in concert with and enhances each other. The time loop that forms the hook on which all this hangs is a brilliantly implemented and fresh innovation that takes *Outer Wilds* to the next level and enshrines it with classic status. ✱

REG STEVENS

If you grew up with a VIC-20, you may recognise the name RW Stevens from the title screen of many a game. It's time to meet Reg in person...

Words by Paul Drury

We are all familiar with the teenage bedroom coders of the early Eighties but Reg Stevens was a rare breed: a middle-aged lounge coder. Born in 1942 at the height of the Second World War, he didn't begin programming games until he was 40, and then stopped when he was 42. Yet in those few short years, he produced some impressive titles for the VIC-20, pushing the unexpanded machine to its limits, particularly with his excellent version of *Scramble*. Though he never quite found his feet on the Commodore 64, his story is very much of a time when anyone could buy a micro and have a go at creating a game – and see it on the shop shelves. "It was never a profession for me," smiles Reg. "I made all my games for fun – and I really did have a lot of fun doing them for those few years."

We have been trying to contact you for many years, Reg. When we finally did find you, thanks to help from Frank Gasking, you seemed very surprised.
I was amazed, to be honest. I've never been famous or anything like that, and there must be quite a few [people with the name] RW Stevens, so you did well to track me down!

Your version of *Scramble* was the first game this interviewer played on his first computer, the VIC-20. Did you imagine you would be asked about it almost 40 years later?
I had heard about the interest in retro games but it wasn't something I ever pursued. I only made [the games] for fun in the first place, just something that interested me. It hasn't been a big part of my life.

We know we are not the only ones with strong memories of *Skramble!*...
At the time, it astonished me with how well the game came out. I don't want to be big-headed, but it was quite an achievement on the VIC, given the limitations of the machine. By today's standards, it's remarkably crude and simple, of course. It's almost prehistoric.

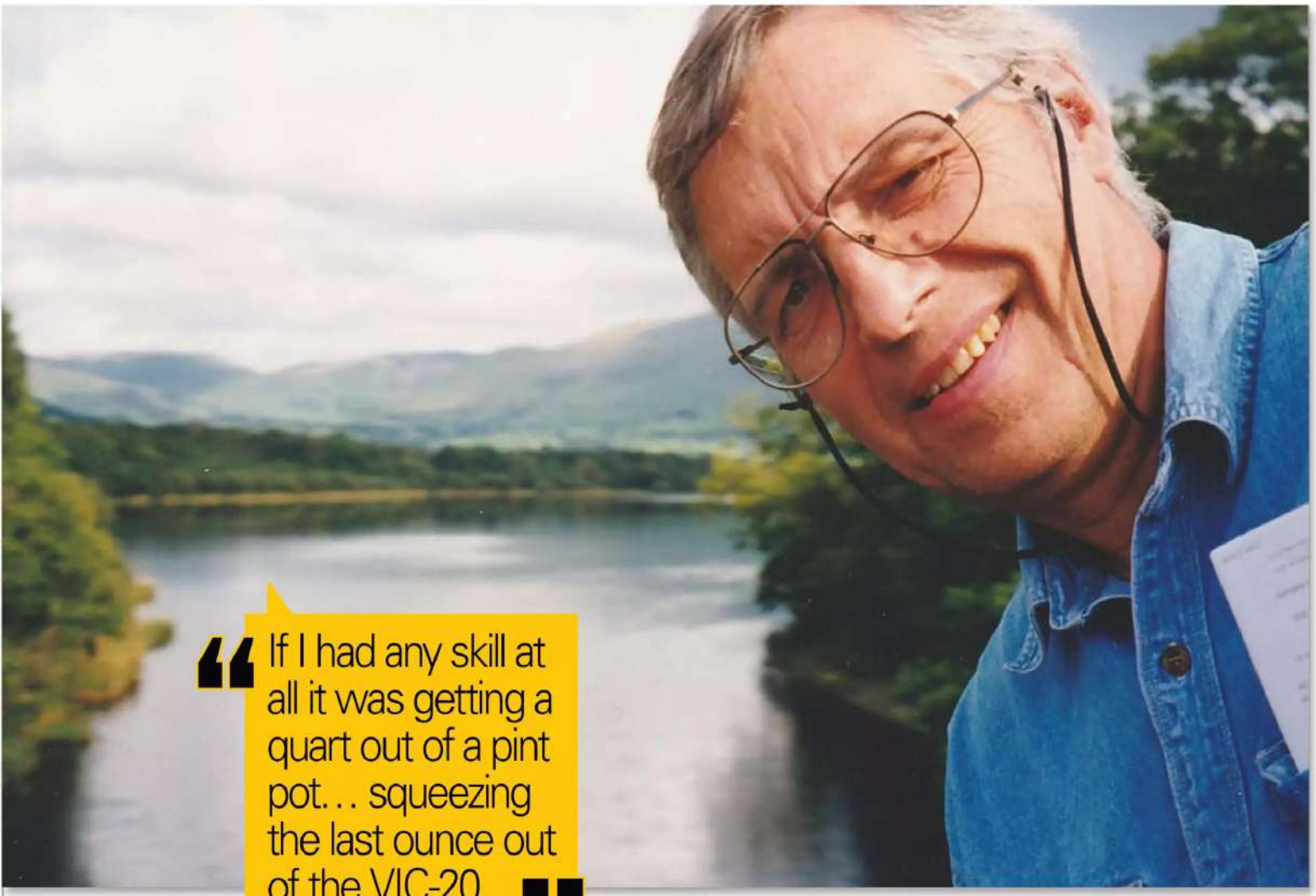
But Reg, not all the memories are good ones. Why did you only give players a single life in that game?
[Laughs] I don't know. I never thought otherwise. You were playing it for free so I didn't see much point in giving you more than one life. That would've made it too easy.

Even if you survive the incredibly tough earlier levels, there never seems to be enough fuel to make it to the end. When it comes to game design, are you a sadist?
Listen, I know there was enough fuel because I completed it! My eldest son, Robert, became an expert at it. The first version of *Skramble!* was sold by Rabbit Software. I remember going to a computer show at Belle Vue in Manchester, in 1983 I think, and Rabbit had a stand there with all their games, which you could queue up to play. And there was *Skramble!*. Robert joined the queue and when it was his turn, he played it to the end. The kid behind him said, 'Eh, you've played that before!' My son said, 'Oh my dad wrote it,' and the other kid said, 'Yeah, yeah, yeah...' [laughs]. That was terrific.

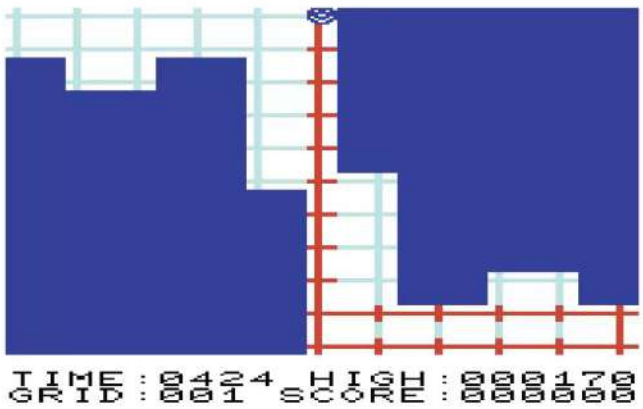
What was a 40-year-old father-of-two doing making computer games in the first place?
My fascination growing up was always radio and electronics, and I did end up working on computers in a mainframe environment. I was an electronics engineer, starting as an apprentice for a company that made computer accessories, like paper tape readers, stuff that's obsolete now but was cutting edge back then. I ended up at ICL in Manchester, and in the early Eighties someone at work loaned me a ZX80 for a weekend and just making a blob move on-screen fascinated me. When the VIC came out, I could see it could do a lot more than that, so I bought one.

Did you begin making games straight away?
Over Christmas 1981, I wrote my first game, which was a computer version of [the tabletop game] *Connect 4*. I wrote it in BASIC and I made it look at the board and work out every possible combination and choose the best move from the criteria I'd coded in... which meant it could take five minutes to make a single move! Any player would get fed up waiting so I did the algorithm which worked out the computer's next move in machine code. That made it as immediate as a human opponent.

We imagine that made it a much better game.
Well, I knew a colleague at work, Andy Hieke, had a VIC-20, so took it in to work in January and



> If I had any skill at all it was getting a quart out of a pint pot... squeezing the last ounce out of the VIC-20
>
> Reg Stevens



SELECTED TIMELINE

GAMES

- **CONNECT 4** [1982] VIC-20
- **SKRAMBLE!** [1982] VIC-20
- **MAZE MUNCHER** [1982] VIC-20
- **METEOR BLASTER** [1982] VIC-20
- **GET LOST** [1983] VIC-20
- **GRIDDER** [1983] VIC-20
- **RESCUE FROM CASTLE DREAD** [1983] VIC-20
- **SUPER SKRAMBLE!** [1983] C64
- **SUPER GRIDDER** [1983] C64
- **SUPER DOGFIGHT** [1983] C64
- **STAR COMMANDO** [1984] C64

» Reg kept this Terminal Software poster from 1983, which shows his games making up the bulk of the company's releases.

said, 'Here you go – a game for you to play.' Andy came back to me a few days later and said, 'That game's pretty good. You should sell it.' I told him I couldn't be bothered with that, I'd only done it for fun, so he said he'd sell it. And he did. That's how it all began.

How did he go about selling it?
I think he advertised it in *Computer And Video Games* magazine. A couple of months later, he brought a cheque in to work for £20, which he said was my cut. I thanked him and thought no more about it. Then, apparently, he was contacted by the editor of *C&VG* who was writing an article for *The Times* about embryonic computer software companies. During the interview, Andy said his company was producing more games and one of them was *Scramble*. He phoned me up and said he needed me to make a version of this arcade game. Quickly.

Was this the first you'd heard about you doing a version of Konami's famous shooter?
[Laughs] Yes and I'd never even heard of the game! I told him I had no idea what *Scramble* was about. I was a 40-year-old man – I wasn't going to arcades. I did have my little computer, though, and was finding it fun to program, so I suppose I saw it as an intellectual challenge and rose to the bait. I said I'd have a go, so I took the kids to Blackpool one day to do some research and see what the arcade game looked like.

And your sons played the game right through while you stood behind them and made notes on all the different sections of the game, right?
No, because neither of them was any good at it [laughs]. It seemed hopeless... but just as we were leaving the arcade to drive home, I saw this kid playing it on a machine at the back of the arcade. He was really good and played it to the end. That gave me a good idea of the game. I didn't make any notes, I just watched it being played through once.

You have impressive memory skills! Your version is really fast – even faster than the original, if anything.
I actually wrote the whole thing in BASIC first, which was painfully slow. The game was unworkable [in that form] so I got hold of a 6502 manual, the microprocessor in the VIC, and looked up all the instruction codes so I knew what they were in numbers. Then I painstakingly poked the numbers in, one by one. That turned the BASIC commands into machine language.

You didn't learn assembly language to do this?
Oh no, and I didn't have any tools at all. Just the VIC-20 and this book, which told me the instruction codes. In hexadecimal. It was a laborious job.

> "I spent a lot of hours at the machine. I'd sit there in front of this little television and fiddle about on the VIC. Drove my wife mad"
> Reg Stevens

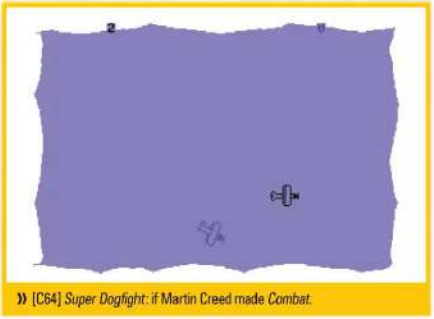
I didn't have a machine code monitor or an assembler or anything like that.

***Skramble!* is a huge step up from adapting *Connect 4*. Had programming taken over your life at this point?**
Well, it was as near to divorce as I've ever got. I did spend a lot of hours at the machine. Every night I'd sit there in front of this little television and fiddle about on the VIC. Drove my wife mad.

If you were a bedroom coder, we can sympathise with her.
Oh no, I ended up in the corner of the lounge.

That's a relief. Did you have a contract with Andy to deliver *Skramble!*?
Oh no, nothing like that. It's not really clear what happened with *Skramble!*, to be honest. I wrote it for my own satisfaction, not to make money. I wasn't the least bit interested in that. I just did it for fun. When it was finished, I gave it to Andy and said, 'Try that.' He came back and said it was good

» [C64] We think we smell a rat in *Rescue From Castle Dread*.

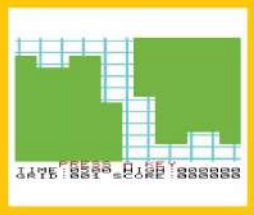


» [C64] *Super Dogfight*: if Martin Creed made *Combat*.

FIVE TO PLAY Reg's finest releases

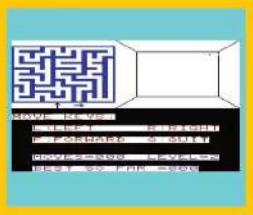
SKRAMBLE!

■ Yes, it is incredibly tough. Yes, giving players a single life and minimal fuel is cruel. And yes, this is still one of the best games on the unexpanded VIC-20. It remains a great source of pride for Reg, and if you manage to complete it, you'll feel that pride too.



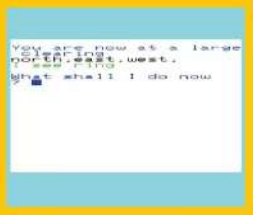
GRIDDER

■ This takes the line-painting premise found in the likes of *Amidar* and plays around with the grid layout to entertaining effect. Add relentless enemy pursuers and a handy line-break move, and you have another fine game for the unexpanded VIC.



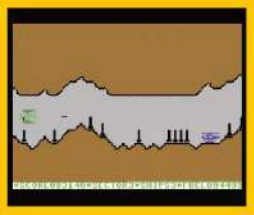
GET LOST

■ Reg specialised in pushing the limited hardware and memory of the VIC to its limits, and this manages to create large 3D mazes for you to stumble through. As a game, it lacks tension, but it is certainly technically impressive for 1983.



RESCUE FROM CASTLE DREAD

■ Reg tried his hand at the text adventure with this tale of a captured princess. By his own admission, it is not a shining example of the genre, but it takes us back to a simpler time when all you needed was a verb, a noun and your imagination.



SUPER SKRAMBLE!

■ Reg never quite mastered the Commodore 64 in the way he did the VIC-20, so it is apt that his best game for the beige beauty is a reworking of *Skramble!*. It's hardly arcade perfect but it's fast, fun and finally gives you three lives to play with.

and he'd try to sell it. He negotiated some deal with Rabbit Software. God knows how much he got for licensing it to them.

What did you get for your efforts?
A printer. Andy gave me £500 eventually so I bought one for the VIC. I wrote some more games sat in my lounge that year and then one day Andy said he was giving up work to set up on his own as Terminal Software. I couldn't believe it. Giving up his job to sell these little computer games!

Did you consider doing the same?
Oh god, no. Computer games weren't my life. Electronics was what I was interested in.

Let's talk about the other games you wrote in 1982 for the unexpanded VIC-20. *Meteor Blaster* appears to be a traditional left-right shooter but your ship is fixed in the middle of the screen and the whole playfield moves around it.
That was supposed to represent your view out of the front of the spaceship. It was me trying to be clever. Too clever, I think. It wasn't based on any arcade game because I didn't go to arcades. I'm not sure what motivated me. Trying to be different, I suppose.

Your ship in *Meteor Blaster* is ridiculously big, making it really difficult to dodge the aliens and space debris. Is this you being sadistic again, Reg?
[Laughs] Could be. I thought it was appropriate so that's what you got. People have always criticised my graphics, too. And sound.

You also produced *Maze Muncher* for Terminal Software. Any worries about blatantly copying a popular established game like *Pac-Man*?
Well, everyone did *Pac-Man* and any version on an unexpanded VIC was going to pale into insignificance compared to the arcade game anyway. Part of the challenge was trying to at least get close to the original, but I never quite figured out how *Pac-Man* worked and *Maze Muncher* was not one of my better efforts [laughs].

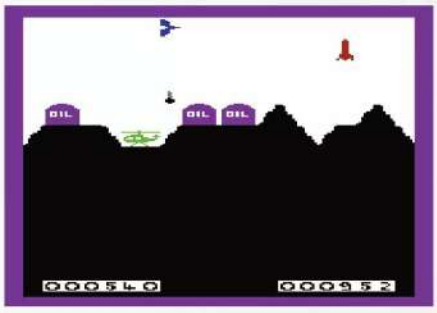
How long was it taking you to make these games?
I shudder to think. *Skramble!* took me about six weeks and *Maze Muncher* took two or three. Remember, I was still working full-time at my proper job.

Did you ever get to go to computer game shows as part of Terminal Software?
No, I was never involved with the commercial side. Andy just accepted whatever I gave him. He didn't give me any direction, really. He'd sometimes give me a comment, like, 'It would be better if it did this, Reg...' and I might change it but there wasn't really any quality control. Like I said, I really wasn't interested in the commercial side. I did get some financial returns from Andy but how much I got in relation to how much he made selling my games, I don't know. Probably quite small. At Terminal Software's peak, he had other game authors, not just me... though it did start with me.

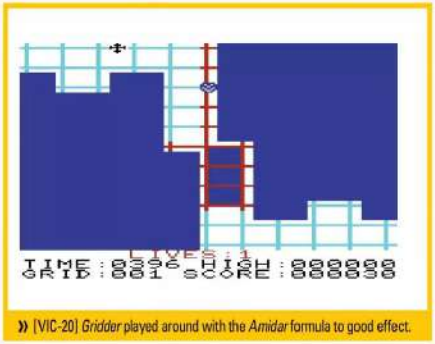
What was Andy Hieke like?
He was a real character. Last time I spoke to him, he was vice president of Nintendo Software or something, so me writing that *Connect 4* game kickstarted what turned out to be a very successful career!

What do you mean, exactly, by Andy being 'a character'?
[Pauses] Well, he was a real individual and very charismatic. He always tried to do the right thing by me, but I'd say he was a bit cheeky. I remember the boss of an American company based in New York was coming over to license *Skramble!* to publish in the States. Andy said to me, 'This guy's coming to visit my company and I haven't got a company – it's just me flogging stuff.' So Andy rented an office for the day in the middle of Manchester. God's honest truth. He drove an old banger so he also rented a flash car for the day.

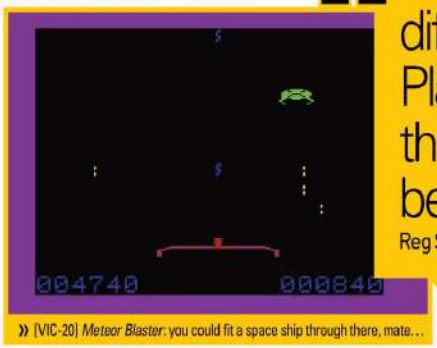
» The rare small cassette version of Reg's excellent *Scramble* clone. (Image courtesy of *The Games That Weren't* author, Frank Gasking)



Did the charade work?
It must have done, because the pair of them met in the day to do the deal and they came round to mine in the evening because this American boss wanted to meet the programmer. He must have been 25 stone. Really big. He sat down in my



» [VIC-20] *Gridder* played around with the *Amidar* formula to good effect.



» [VIC-20] *Meteor Blaster*: you could fit a space ship through there, mate…

> A game has to be difficult but doable. Players have got to think, 'Next time I might be able to do it!'
>
> Reg Stevens

» [VIC-20] With only a single life to complete *Skramble!*, there is absolutely no room for error.

armchair and broke one of the legs. When he heard how I'd coded *Skramble!* he couldn't believe it. [Puts on an American accent] 'You don't have an assembler? You don't have a machine code monitor? We got all the tools from Commodore!' About a month later, a load of stuff turned up for me with all these programs. I think that made me an approved programmer!

As 1983 dawns, you seem to be exploring new areas, starting with *Get Lost*, a 3D maze game. Were you inspired by *3D Monster Maze* on the ZX81?
I was aware of that game but hadn't played it. The most interesting bit of my game was the algorithm that created the maze. Each one was different. Graphically it was very limited, just lines, but the effect is pretty good, I think. Maybe there's a little bit of artist in me after all [laughs].

The sadist is still in you with *Get Lost*, as it gets very hard very quickly, with invisible maps and convoluted pathways.
[Laughs] A game has to be difficult but doable. Players have got to think, 'Next time I might be able to do it!' If it's stupidly difficult, you play it once or twice and say, 'To hell with this,' but if it's too easy, you get bored. You're looking for the middle ground. That's the secret. Good graphics can give it the wow factor, but a good game… that's why these simple retro games still have that fun factor.

You even turned your hand to text adventures with *Rescue From Castle Dread*. Did you meticulously map the game out first?
Nah, I made it up as I went along. I had a vague idea of there being a woodland to wander about in, a princess to rescue and things that killed you off. I remember there was a dead rat and if you carried it for too long, you caught a disease… text adventures were in vogue back then but I'm not sure how good mine was in the great scheme of things.

We enjoyed your take on *Amidar*, *Gridder*, which messes about with the grid layout to add variety.
You're trying to get the most you can from 3K so I think I made a couple of grids and started superimposing them on top of each other in different orders to make different screens. I was trying little tricks like that to make maximum use of every byte I had.

You updated the game when the Commodore 64 came out but without wanting to sound rude, we can't quite see what's 'super' about *Super Gridder*.
I think maybe it was smoother… to be honest, I didn't get on so well with the C64. If I had any skill at all it was getting a quart out of a pint pot. I wasn't as good at taking advantage of all the extra memory and facilities on the C64 as I was of squeezing the last ounce out of the VIC-20. In many ways, the VIC suited me because it could just about do the things I wanted it to, whereas the C64 could do what I wanted very easily.

Were you a little daunted with having 64K of memory when you had been used to working with little more than 3K?
Oh yeah. I bought a C64 pretty early on, maybe in 1983. I was pretty excited because it meant I could do a better version of *Skramble!*. I had oceans more memory and you could scroll the screen much more smoothly.

***Super ≠!* for the C64 did finally give players three lives! Were you getting softer in your old age?**
[Laughs] Probably. If that game is better, it's only because it's on a better machine… I know I could have used more of the capabilities of the C64, though I did use sprites. Back then, a lot of programmers didn't rate them!

SCRAMBLED

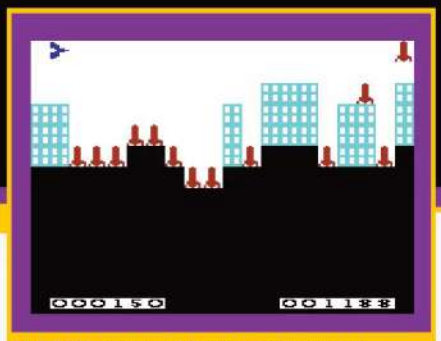
The other versions of Reg's cracking Konami clone

Reg's excellent *Skramble!* had no less than four separate releases. The first was through Rabbit Software, which is probably the version you played in the UK. Then there was a Terminal Software version with slightly reworked graphics, and collectors especially prize the limited run of small cassettes as opposed to the clam case. In the US, the game was licensed by Computer Software Associates, but then an identical version was released by HES, retitled as *Raid On Isram*. "I think I'm right in saying we knew nothing about that version," says Reg. "They essentially pirated my game!" Whichever version you come across, be assured you'll be playing one of the unexpanded VIC's best games.

» [VIC-20] The first release of *Skramble!* was by Rabbit Software and featured a more Vic Viper-style ship, appropriately enough.

» [C64] Did you win your wings in *Star Commando*?

» [VIC-20] Miss those fuel dumps at your peril!



» [VIC-20] The final stages of *Skramble!* were ridiculously tough.

Super Dogfight is fun, if a bit minimal. Was that drawn from childhood in the war?
Those are supposed to be biplanes from World War One. I'm not that old! I should have put a computer-controlled opponent in that game but I think Andy made a thing about it being one of the first two-player games on the C64, but that could be a drawback if you were a kid on your own in your bedroom.

Your final game for the Commodore 64 was _Star Commando_ and it seems your most ambitious, with 16 sectors filled with alien invaders to eradicate.
That was my attempt at a 3D shoot-'em-up. Whether it's apparent or not, I don't know. The aliens are supposed to be coming towards you, but I don't think it works that well. I was disappointed with that but as a game, I think it was okay. It did have a lunatic scoring system. The further you get into the game, the score rate rises exponentially, so survival becomes by far the most important thing.

Was Andy still happy to publish anything you gave him, then?
Oh yeah. By this time, he had employees – a secretary and two lads, producing the actual tapes and packaging. I'd go into the offices sometimes. The first was above a video shop but then he got a proper office suite in Bury. He didn't need to rent an office for a day to impress Americans anymore. He had the real thing.

So why did you stop making games?
I was just too busy with real life plus it all went pear-shaped around 1984. The bubble burst and it ceased to be a cottage industry. Things kind of collapsed. Andy lost a lot of money and Terminal went bust eventually, though Andy did set up another company in Manchester.

Did you consider joining him?
No. He changed tack and instead of marketing the programs other people like me were making, he was employing programmers, mainly young lads obsessed with computers who had no qualifications but could program Amigas, and he'd make games for other companies [to publish]. I used to go to Andy's office and he'd say, 'You can have a desk here any time you like,' but I didn't want to do that. I never got involved, which was just as well. For me, it was just a hobby, a bit of fun… though I did get a car out of it.

What, a Ferrari?
No, a Vauxhall Cavalier. I do know the turnover for Andy was a quarter of a million [pounds] one year. Those weren't just from my games but I must have contributed quite a bit of the output. If I'd had a royalty agreement, I would have probably made more but he never cheated me. And I know he suffered greatly at times when the business got into trouble, so he's welcome to it all.

You seem to look back at your short time in the games industry with genuine fondness.
Oh yes, it was terrific fun while it lasted. With the money I made, I bought my wife an eternity ring and a pool table for the boys. They did alright out of me [laughs]. My own achievements pale into insignificance compared to my eldest son Robert, who's a university professor, but because of the games I wrote, he thinks his dad is clever. That gives me no end of pleasure.

Many thanks to Frank Gasking, for his help and detective work, and Mat Allen. ★

YOU ASK THE QUESTIONS

Readers can get involved at www.retrogamer.net/forum

FREDGHOSTMASTER: _Skramble!_ was one of my favourite games on the VIC-20 as a kid, but why did you make it so tough?

[Laughs] It's not too bad until you get to the buildings. You have to move so quickly up and down to get through them, and you've got to get it just right to steer your ship into the slot for the music to play at the end… that is very difficult. The problem I found was making it anything less than very difficult! If I made the buildings smaller, it was just too easy.

NORTHWAY: Do you regret not continuing making games after 1984?

I suppose I do wish I'd done more but I had pressure from other things in my life. Writing computer games wasn't my job and that led me elsewhere. I did write a fast loader that Andy [Hieke] called TermiLoad, which took me some time to work out, so I was still learning how to do things on the machine.

MERMAN: Did you have any unfinished or unreleased titles?

I made some progress with a chess program for the C64 but Andy wasn't interested in releasing it so I never finished it. I used the main algorithm to write a crossword compiler for the Amiga, which I called Lexitron, and I made it available for free on an internet crossword site. It was there for years!

ERIC: Which of your games was the most fun to develop, and which proved the most difficult?

Skramble! was the most fun because it turned out better than I ever dreamt. The most difficult was _Star Commando_. Andy was a marketeer and did an advert for the game saying you could 'win your wings'. When you got to a certain stage in the game, it revealed a code and if you sent that to Terminal Software, you won a badge – a pair of wings. I had to encrypt my machine code in a crafty way so people couldn't hack into it and find the hidden code!

PLAYER1 00009701
AREA
MISSILE
BOMB
ARM
A
x 2

G-Darius

A 3D JUMP WORTH MAKING

» RETROREVIVAL

» PLAYSTATION » 1998 » TAITO

When Strictly Limited Games released its insanely priced *Darius Cozmic Collection* across two Switch cartridges earlier this year, I was one of the suckers that bought it...

I regret nothing. Normally, I don't go for limited editions anymore, and I'm not a big fan of splitting games across multiple carts, but I do love me some *Darius*, and there was enough cool stuff for me to stump up the 130-odd-quid asking price.

Imagine my shock, then, when I realised that *G-Daris*, one of my favourite games in the series, wasn't actually included. I knew this, mainly because we'd already reported it several times in **Retro Gamer**, but for some reason, when I saw the words '*Darius Gaiden*' on the back of one of the boxes, I somehow confused it for the 3D version and hyped myself up for something that was never on the way. Needless to say, I was quite disappointed when I loaded the game up.

That disappointment didn't last long however, because we live in a magical word where you can now pretty much get any retro game you've ever wanted to own – provided your pockets are deep enough – and after a £32 transaction, the Japanese PlayStation version was winging its way to me.

And what a version it is. Granted, it lacks the polish of the arcade original, and there's some irksome slowdown in places, but it still manages to deliver the spectacular highs that the game offered when I first played it on a friend's PlayStation in 1998. Many genres really struggled with the move to 3D, but I don't feel this was really the case with a lot of shooters of the period, probably because they still kept their traditional side-on scrolling stages. *G-Darius* may have added polygons and a new beam-duelling mechanic, but it was still the same *Darius* of old, and while the graphics were a little uglier, you still had familiar-looking enemies and bosses, the ability to capture certain enemies, multiple routes and a truly astounding soundtrack.

It might be hard as nails and I'll probably never be able to beat it, but I do love *G-Darius*. And, I dare say, I'll pick up the incoming *Darius Cozmic Revelation* that Taito announced earlier this year (after I'd already bought the PlayStation version, of course).

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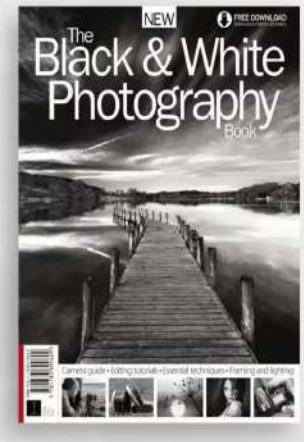

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>> This month we put the expensive Polemega to the test, find out how the new Crash Bandicoot game stacks up, read an entire book devoted to the Acorn and get super serious with some guy called Sam

» [Polymega] Saturn support is a huge draw for the Polymega, and everything we tried worked well.

Polymega

'POLY' MEANS 'MANY', AND 'MEGA' MEANS 'MEGABUCKS'

The dawn of a new generation is always exciting, and the Polymega represents exactly that for retro consoles. Sure, we've had multi-console emulation systems before, like the RetroN 5 and the Retro Freak, but Playmaji's new console offers a range of features that make it much more versatile than those old systems – chiefly support for CD-based consoles.

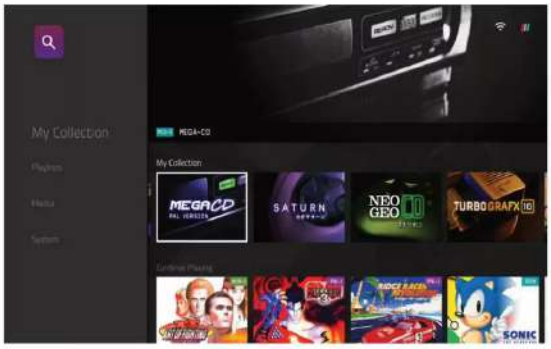
Externally, the Polymega base unit is a fairly unassuming black box that's built for function over frivolity. The front of the system features the power button, two USB slots and a CD-ROM drive, while the rear offers power, HDMI and network ports, as well as a Micro SD card slot. The underside of the console features a hatch for an M2 solid-state drive, allowing you to expand the console's internal storage. On the right, an eject button lets you remove the dust cover and install an optional Element Module – a big slab of plastic that features a cartridge slot and control ports for a single classic console. For this review, we were supplied with the Mega Element Module. The console comes with a comfortable PlayStation-style wireless controller, which connects to the base unit with a USB dongle. Some games are supplied preinstalled with the console, and each Element Module adds some more.

Out of the box, the base unit supports games for a variety of CD-based consoles, including the PlayStation, Saturn, Mega-CD, PC Engine CD and Neo Geo CD. That's a great range, and with the Element Modules – sold separately – you can also add the Mega Drive, SNES, NES and PC Engine HuCards. Upon inserting a game, the console will check it against its database and present you with information about the game, as well as giving you the option to choose a region if appropriate. You're also given the option to install your game to the console's internal memory – a simple process, and one which

INFORMATION

- **RELEASED:** OUT NOW
- **PRICE:** £464.99
- **DEVELOPER:** PLAYMAJI
- **PLAYERS:** 1

» [Polymega] The brightness and contrast controls for the CRT-style display modes are a very welcome addition.



» [Polymega] The console's menu system is clean and attractive, offering quick access to system libraries and custom playlists.

» The system's design looks sleek, evoking modern mainstream consoles. And the pad is nice, too.

BRIEF HISTORY

» Originally announced as the Retroblox in 2017, the Polymega is a console that uses software emulation to play a variety of classic console games, with modular expansion units as a key feature. The machine is powered by an Intel Coffee Lake S series CPU and has 2GB RAM, with 32GB of on-board storage and an 8x CD/DVD drive. The Linux-based operating system features a custom front end, and Playmaji has stated that Mednafen, Mesen, MAME and Kega Fusion are legally licensed for use on the console, with additional work on bug fixes and CD BIOS development by the company itself.

✱ PICKS OF THE MONTH

DARRAN

Star Wars: Squadrons

It's an *X-Wing* game in all but name and – not being able to play it in VR aside – is every bit as excellent as I hoped it would be.

DREW

Outer Wilds

It was like clockwork: after I read through Paul's Future Classic (p88), I sailed over to my PS4 and bought it. He's right, it is wonderful.

»[Polymega] We confirmed the Polymega would run back-up discs with the notorious cancelled PlayStation game *Thrill Kill*.

★ THE SHAPE OF THINGS TO COME

» The Polymega has plenty of promised features that we were unable to test, as they are yet to be implemented. The RGC01 is an HDTV-compatible lightgun, which will work with the Polymega across all compatible systems. This is based on the Sinden Lightgun technology, and Playmaji has indicated an expected US retail price of $99.99. However, this was not available at the time of review.

Many of the other promised features relate to online services. A digital store is set to be opened, selling downloadable games in much the same way as you'd buy them on modern consoles. Publisher support and pricing for the store has yet to be announced, but the company is aiming to open it in the second quarter of 2021. Playmaji has also announced that the Polymega will support current-generation game-streaming services, potentially opening the door to things like Stadia and PlayStation Now – though it's important to note that no particular services have been specified. Video recording and broadcasting to streaming platforms, such as Twitch, were initially set to be part of the console's feature set, but Playmaji has returned these features to experimental status "until we can determine that it is fully compatible when the machine is running computationally demanding emulators such as PlayStation and Sega Saturn in the future".

Any of these features could potentially be game-changers in the future, so keep an eye out for news if you're interested in the system but not yet convinced.

means you never have to insert the disc or cartridge again. Cartridges will be ready instantly, but CDs take a bit longer depending on content and condition – we noted install times of six to ten minutes for larger ones. It's possible to play games while installing them in the background. We were able to fit about 70 Mega Drive games and 16 CD games on the internal storage alongside the preinstalled games, so there's a decent amount of room.

The internal database is impressively comprehensive, recognising our obscure Japanese PlayStation games as well as mainstream favourites. It even recommends other games you might like, which is a nice touch. However, if the console can't match a game to the database it will run it but won't install it. This problem cropped up a few times with our Mega Drive collection – *Pac-Panic* went unrecognised, as did our PAL *Sonic 3 & Knuckles*, though the US carts worked fine. We also found that two Codemasters games, *Micro Machines 96* and *Cosmic Spacehead*, didn't work at all. Interestingly, although the system doesn't support EverDrives or side-loading of ROM files, back-up CDs do work fine.

»[Polymega] There's no need to worry about system cards and other compatibility issues when playing PC Engine games on the Polymega.

We found the emulation to be very good across all supported consoles, and encountered no compatibility problems or visible flaws. Neo Geo CD games in particular really benefit from being played on the Polymega – we chose some fighting games noted for their obnoxiously long loading times, and they were completely minimised here. You can choose to display games at 4:3, 16:9 or pixel aspect ratio, with shimmering issues coming and going depending on each game's native resolution. If a game runs in a high-resolution interlaced mode, the Polymega applies a simple bob deinterlace resulting in some visible flickering that isn't especially attractive, but is crucial for keeping lag down. There are virtual RGB and composite display modes, which thankfully let you adjust brightness and contrast to your liking. Save states are also supported.

There are some problems, though. Because it's wholly likely you'll end up playing a favourite game with a controller it wasn't originally intended for, button configuration options are a must – but they're not present here. The database is somewhat dictatorial, too. Your European Mega Drive game may contain no region-locking code and run fine at 60Hz, but the Polymega doesn't care – if it's identifiable as a European release, you're stuck running it at 50Hz. That's not great because the console's output is locked to 60Hz,

»[Polymega] The lack of loading times for Neo Geo CD fighting games has a truly transformative effect on their playability.

which can give an unpleasant juddering effect during scrolling scenes in 50Hz games. We were also surprised to find that the system didn't pick up our saved games on Mega Drive cartridges. The console's firmware can be updated and Playmaji has indicated a desire to work on many of these problems, so it's worth watching for progress on these issues.

Despite those gripes, the Polymega offers a lot of functionality in a single box, and is great for convenience and saving space. However, you'll have to think long and hard about how much those benefits mean to you, because the price is very steep. The Polymega base unit already costs slightly more than an Xbox Series X or PlayStation 5, and the element modules cost £109.99 each. The set we tested would cost you £575, and a full setup with all four modules totals just over £900. For many people, that's probably too much, but if you're willing to pay out you'll get a high-quality product. ★

In a nutshell

The most versatile retro multi-console yet offers some excellent functionality, with the potential for more to come, but as it stands the cost is just far too high for most – especially if you want all of the Element Modules.

★ PICK OF THE MONTH

Crash Bandicoot 4: It's About Time

» **System:** PS4 (tested), Xbox One » **Buy it from:** Retail, online » **Buy it for:** £59.99

After the smashing success of *Crash Bandicoot: N Sane Trilogy*, it's no surprise that Activision has created a follow-up that takes direct inspiration from those three games. Dr Neo Cortex and N Tropy have found a way to open up time rifts, and it's up to Crash and Coco to chase them through the past, present and future to halt their plans of world domination. As before, this means running through corridor-style platform stages, smashing crates, beating baddies and occasionally riding wild animals.

A variety of new masks are introduced, with functions like inverting gravity, slowing time and phasing objects in and out of existence. These are well-implemented and add new challenges, as do the three additional playable characters, including an alternate-universe version of Tawna. Each has their own unique skills, from a hookshot to a vacuum that doubles as a hovering engine. The new rail-grinding sequences are okay, though if you're looking to get all the crates, they essentially function as memory tests since you can't go backwards. The whole game has an excellent cartoon appearance and the iconic sounds of the original games are retained.

Crash 4 has been built for veterans of the original trilogy. The difficulty is reasonably high, even with a 'Modern Mode' that gives infinite lives – though since largely linear level progression has been brought back, getting stuck may be a problem. If you're aiming for full completion, frustration is inevitable. Long levels make gems for 100% crate destruction a chore to obtain, Flashback Tapes that unlock extra challenging levels become unobtainable if you die during a stage, and you'll need to get the relics for all-crate, no-death runs. Oh, and every stage has an 'N Verted' version.

Crash 4 is a polished platformer with plenty of imaginative design, and if you're already a *Crash* fan you'll likely love it. Everyone else is best advised to consider their tolerance for challenge, especially those who always aim for 100% completion.

» Score **80%**

»[PS4] Thankfully, bosses have automatic checkpoints – you'll definitely need a few attempts to memorise their attack patterns.

»[PS4] The divisive 'into-the-camera' sections return, but they're well-executed with clear paths to follow.

Super Mario Bros 35

» **System:** Switch » **Buy it from:** Online
» **Buy it for:** Free (NSO subscription required)

The original *Super Mario Bros* was never designed as a competitive game, but Nintendo has made a brave effort to make it work as a battle royale to celebrate the series' 35th anniversary. Unfortunately, it just doesn't fit the style as well as *Tetris*. Your goal is to play through stages, defeating enemies to send them to your opponents and add time to your clock, while gathering coins to generate random items. The action can get frantic but matches run a bit too long, and while you unlock the ability to start from later stages, you're often sent back to the early game, leading to repetition. It's free, so it's worth a go regardless, just don't expect greatness.

» Score **65%**

Acorn – A World In Pixels

» **Buy it from:** idesine.com » **Buy it for:** £29.99

From the moment you gaze at Ste Pickford's excellent cover and read Iain Lee's intro you know a lot of love has been poured into this book. *A World In Pixels* opens by focusing on the many software houses that supported the BBC Micro and Acorn Electron, but its real strength comes once you get to the extensive game section, which is filled with interviews. The entire book is rammed with developers who supported the machine in its halcyon days, from Tim Dobson (*Monsters*) to Mat Newman (*Fortress*) and Ian Bell (*Free Fall*). Every notable game is covered, including a great piece on *Elite* from both Ian Bell and David Braben, while magazines, lost and found games, and music are also explored. It's a little tricky to find specific games and devs with the contents, but that's our only quibble.

Serious Sam 4

» **System:** PC (tested), Stadia » **Buy it from:** Online
» **Buy it for:** £30.99+

If you're looking for a groundbreaking state-of-the-art first-person-shooter you're looking in the wrong place. *Serious Sam 4* feels old-fashioned, creaks in all manner of places and has a script that will often have you wincing as you listen to it. And yet we still managed to have a lot of fun, mainly because the shooting is so enjoyable. While the guns don't quite feel as varied as the ones in *Doom* and *Doom Eternal*, they remain satisfying to use on the hordes of enemies that constantly throw themselves at you. The game is at its best when you're surviving waves of foes with a mate, but there's enough side-quests to keep things interesting. Turn off your brain and enjoy some silly chaotic fun.

» Score **73%**

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HOT TOPIC

RETROBATES MULL OVER THE SCENE'S MOST INTRIGUING ISSUES

» [Switch] *Super Mario 3D All-Stars* contains HUD upgrades, a resolution bump and remastered FMV – but it's all subtle stuff.

» [PS4] People can be willing to forgive a mediocre remaster, if it makes a rare game like *Metal Wolf Chaos* easier to obtain.

» [PS4] This delinquent's jacket shows how HD remasters that rely on original textures, like *Shenmue*, can look messy.

» [PS4] Bluepoint Games does marvellous work – *Uncharted* hardly looks like a 2007 game right here.

THE MASTERS OF REMASTERS

Team RG discusses enhanced re-releases

DARRAN JONES

NICK THORPE

DREW SLEEP

Sitting neatly between no-frills emulation and a full remake, a good remaster can really refresh a classic game without breaking the bank for players or developers. But what are the specific ingredients that make for a good remaster? We sat down as a team to share our thoughts…

DREW I know it sounds simple, but no input lag. Man, does that ruin a game for me.

DARRAN I like properly enhanced visuals and quality-of-life mechanics. So for example, if you play any of the recent *Final Fantasy* remasters, there's a speed-up option which makes all the boring running around bits less frustrating. I don't have the time I used to, so something like that becomes massively appealing.

DREW The boosts and speed-ups in JRPGs are really welcome. We've grown out of the grindiness of the genre now.

NICK I really enjoy museum content that gives context to a game's place in history. Also, if a game was originally designed for a CRT display, good scanline and filter options are essential.

DARRAN When it comes to enhanced visuals, I'm a big fan of developers like Bluepoint, who are probably the equivalent of Criterion. We had the huge spate of 'HD' during the last gen where textures were effectively getting stretched to the higher resolution and losing their lustre and definition as a result. Bluepoint redraw all the textures to the new resolution and the results speak for themselves.

DREW It's wild that Bluepoint have both remastered and *remade Shadow Of The Colossus*.

DARRAN The lengths they go to are above and beyond what other developers do and it shows in the final product.

NICK By contrast, you look at another great remaster studio like M2 – the additions they make are usually more obvious, in terms of extra modes and such, but they're equally welcome.

DARRAN Yeah. Wisely though, they tend to keep them as separate modes, so you get the best of both worlds.

DREW There are different approaches you can take to remastering. You can go the Bluepoint and M2 route, but also there's the 'museum-like' approach that Digital Eclipse excels at.

NICK Digital Eclipse did one of my favourite subtle remaster jobs recently, with the *Samurai Shodown* collection. You don't realise how much difference the HD zoom function makes until you turn it off.

DREW Flourishes like that show the devs' love for the original.

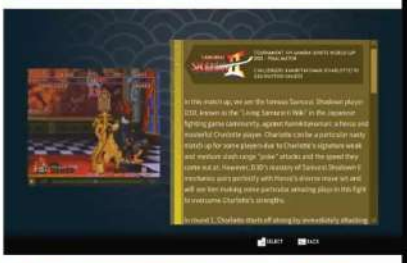
NICK I think there's a danger in being *too* subtle. *Super Mario*

Got an impressive collection of your own? Contact us at:
RetroGamerUK @RetroGamer_Mag retrogamer@futurenet.com

» [Switch] *Doom 64* didn't just bring an underappreciated classic to modern systems, it added a whole new chapter to boot.

» [Switch] M2's work on *Sega Ages* adds new twists to classic games, and is highly commended by press and players alike.

» [Switch] Darran particularly loves remasters that allow you to switch back to classic graphics with a single button press.



[PC] Digital Eclipse provides mountains of context to help players to properly appreciate older games.

3D All-Stars does make some improvements, but they're so minor that some people have mistakenly said no work was done at all.

DREW I think Nintendo perhaps trusted the strength of the original game designs a little *too* much.

NICK That's a real shame too, because Nintendo has been willing to make the effort to correct gameplay flaws in other projects, like *Wind Waker HD*. *Super Mario Sunshine* in particular needed some attention, and hasn't received it.

DREW Oh look, it's the hill I'm going to die on: *Mario Sunshine* is fine and the only 3D *Mario* I like.

NICK I agree there's a lot to love about *Sunshine*, but it's easy to forget that after revisiting all those collision glitches and camera woes.

DARRAN *Super Mario 3D All-Stars* is classic Jeff Winger from *Community* when he wants to coast through a history project: it's 'doable and passable'. I have to admit while the games themselves are very good, the lack of effort is disappointing, particularly when you consider the £45 price tag.

DREW The lack of love directed at those 3D *Mario* games, plus that absurd price tag and limited-time availability, put me right off.

DARRAN I now await someone saying, 'But now I can play *Super Mario 64* on the toilet.' You could do that on the DS, son, and it had some great minigames too.

DREW Oh, I love the Bob-omb sorting game in that!

DARRAN For me, the *Mario* pack is overpriced, although it's still actually cheaper than buying the originals now, which is mind-boggling. A NTSC copy of *Mario 64* now fetches £70!

NICK Fair point. I dismissed *3D All-Stars* as I've got the originals, but not everyone has that luxury.

DREW £70!? That's seven *Croc: The Legend Of The Gobbos*...

NICK And 700% better (with apologies to our former designer Sam Ribbits).

DARRAN Haha! It's funny because it's true.

READERS REACT

Thomas Longstaff
The *Sega Ages* titles were great, they had quality-of-life improvements across all games as well as brilliant presentation. Even some new features like the drop dash from *Sonic Mania* being added to original *Sonic* titles. Classic games but tweaked just a little to be their best.

Dave Tucker
Any little extras that show some love to the remaster process sit well with me. The fast forward, no encounters and super buff buttons in the PS1 *Final Fantasy* remasters make them far more playable for a modern audience.

Michael Braunton
Collections are good, and I like features like save states/rewinds. Also, the current cost of the original game has an impact – if it's a game I'm never going to be able to afford the original of, I'm more likely to buy the remaster.

Robert Dyson
Night Trap is a good example of a remastered game that's worth buying. Updated graphics, lots of behind-the-scenes stuff and a brand-new mode to play.

Electromaker.io
A mix of preserving features from the original and adding new functionality. One of my favourite remasters is *Halo: The Master Chief Collection* for PC. The ability to toggle between original and enhanced graphics is great. Often for remasters, I'll get something I missed earlier or an old fave.

Chris Tabar
I don't care about 'extras' at all. I want upgraded graphics and framerates, and save points if the original didn't have them. Get rid of any bugs but otherwise leave the gameplay identical. Basically, the original *Super Mario All-Stars* is the blueprint for remasters.

H Scorpio
The best are those that capture how it felt to play the game originally with quality-of-life fixes. Hence *Grim Fandango Remastered* being so wonderful – tidying the original art (not rebuilding wholesale), remastering the soundtrack, and adding point-and-click controls.

COLLECTOR'S CORNER

READERS TAKE US THROUGH **THE RETRO KEYHOLE**

NINTENDO ENTERTAINMENT SYSTEM

"It is a game console that makes me happy to collect games software, and it filled my days, as an elementary school child who was getting addicted to playing games, with lots of memory and fun. I can say this game console occupies the most time in my life."

PAID: GIFT FROM PARENTS

DOKI DOKI UNIVERSE

Aditya Rai takes us inside his impressive Japan-centric collection

Many of our collectors look like they essentially run small private gaming museums, but this month's collector is a little different. Aditya Rai runs Doki Doki Station – part-game-store, part-museum, with plenty of his own items on show.

As you may have guessed from the name, Aditya's interests are primarily in Japanese games – most console games coming into Indonesia during the Nineties were Japanese. "Initially, I was interested in Japanese games when I found *Dragon Quest III* for the Famicom. I wondered why games like that were in high demand in Japan, because at that time I preferred action games. After I tried playing it, I became fond of RPGs and started learning Japanese." Soon, these skills would transfer into work. "When I worked part-time at a game store, I was trusted as a game tester to tell people how to play the game. Because even though many Japanese games have entered Indonesia, only a few Indonesians can speak Japanese."

Aditya's collecting habit began when he gained that testing job in the mid-Nineties, but retro only became a focus for him at the turn of the century. "Around 2000, during my final years of college, I got work on a local anime and games magazine. This is when I started aiming to collect retro games, when I got all the Neo Geo game consoles, the Neo Geo AES and the Neo Geo CDs." Since then, Aditya has amassed over 1,500 consumer games and 121 consoles. The console collection is particularly impressive, including plenty of limited edition systems, rare consoles such as the Pioneer LaserActive and the Sony PSX, TV/console combo units like the Sharp SF1 and Divers 2000 Dreamcast, and even oddities like the Super Famicom Box. Additionally, Aditya has a small collection of computers, including the NEC PC-98 and FM Towns, three arcade cabinets and 103 arcade games, including ones for boards such as the Neo Geo MVS, CPS-2 and Sega NAOMI.

Many of Aditya's larger and more unusual items can be found inside Doki Doki Station, where customers can play on the arcade machines and sample rare systems before buying games to take home. "I started my business as a hobby goods importer from Japan in 1999. I not only sell, but also provide consulting services about the world of gaming, especially retro games and those related to Japanese pop culture," he explains. "As a game fan and collector, I really know [what it feels like to be] someone who really wants to have a game or game console of their dreams, but doesn't know where to buy it from, and don't know who to ask. In Indonesia it's very rare to get original games because in the past there were so many pirated games circulating in this country. Therefore, I want to help those who want to own the games and game consoles of their dreams by opening a shop that can fulfil their desires."

Despite the impressive haul that he's already amassed, Aditya is on the lookout for more items, and has some major ambitions. "In terms of game software, I want to complete all the titles that have been released on each game console. But that's still a long way to go, as many games are hard to find and have become very expensive," he explains. With that in mind, he's got more hardware to track down first. "In terms

BIO

NAME:
Aditya Rai

LOCATION:
Bandung, West Java, Indonesia

FAVOURITE GAMES:
Yakuza series

FAVOURITE SYSTEMS:
None ("All machines have their own advantages and disadvantages")

TWITTER:
@d2station

PHILIPS VIDEOPAC G7000

"The first TV videogame console I ever owned, a gift from my grandfather when I was in elementary school in 1983. Since this is a gift from my deceased grandfather, I didn't spend money to get it, but it is very valuable to me."

PAID: GIFT FROM GRANDFATHER

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PC ENGINE DUO-R
"Many of my favourite games are on this console, especially on the PC Engine CD. The most memorable console from PC Engine series is PC Engine Duo R, the first PC Engine I bought with my own money, it cost about $100 for a complete set in 2001."
PAID: $100

NEO GEO AES
"I was very impressed because this console was the first to be able to present arcade games on home TV with the same quality as the arcade version. Besides that, I always remember my struggle to raise money to be able to buy it, and the feeling of satisfaction when I got to have it."
PAID: $600 (WITH NEO GEO CD FRONT-LOADER, TOP-LOADER AND CDZ)

JEWEL IN THE CROWN

ASTRO CITY ARCADE CABINET

"I used to love to go to arcade centres with my family and always spent a lot of time at the arcade machines. Back then, I always had the dream of being able to own an arcade machine at home, and in 2015 Astro City became my first arcade game cabinet to fulfil my childhood dream."
PAID: $200

of game consoles, I am still looking for variants that are rarely known to people, and have started collecting Japanese retro computers as well," he tells us. So if you're ever in Bandung, pop by and say hello to Aditya – you might even get to try his latest acquisitions.

BARGAIN HUNT

Your guide to the rising world of retro prices

THE COVER STAR

PRINCE OF PERSIA: THE SANDS OF TIME

If you want to play the Prince's classic reboot, the good news is you won't need to pay much. PS2 copies can be had for **99p** or less, and the Xbox version is slightly more expensive, running from **£2** upwards. The GameCube version is a bit pricier, as is common for that console, but if you're patient you can snag it for as little as **£4.50**. A trilogy box set for PS2 goes for about **£5**, and the PS3 HD trilogy pack around **£7.50**.

PARAPPA THE RAPPER

Thanks to its cult appeal and frequently misplaced poster manual, a complete PAL copy of PaRappa's debut will typically cost you **£22** or more. The simple gameplay and English voice acting make a Japanese copy at **£10+** an attractive prospect. The PSP version starts at **£4**, so if your battery hasn't exploded yet, it's an option that's well worth considering.

GRAND PRIX SIMULATOR 2

Cassette games are commonly cheap, but *Grand Prix Simulator 2* does buck that trend a little. We've seen the ZX Spectrum version of the game sell for as high as **£19.99**, although an Amstrad compilation with it in recently sold for **£1.90**. The Commodore 64 version also seems reasonably priced and we've seen prices start from just **£3.45**.

PSYCHO PINBALL

Pricing for this Mega Drive cart is all over the shop – we've seen boxed copies with manuals go for as little as **£4** and as much as **£12**. If the outer cardboard sleeve is present, bump that up to **£10 to £20**. If you're just after some great value, there's a double pack with *Micro Machines* that can be had for just **£6.50** complete.

G.DARIUS

There's nothing fishy about the pricing for this PlayStation shoot-'em-up. A PAL copy will cost you **£30** or more, and if you want a Japanese copy you'll get it slightly cheaper at **£22** or more [Oh dear... - Ed]. If you fancy splashing some cash, an arcade PCB sold for a mighty **£365**.

HOW MUCH?!

MIKE TYSON'S PUNCH-OUT!!

When you're buying NES games, the will to put up with a little scruffiness can save you a fortune. A complete PAL copy of *Mike Tyson's Punch-Out!!* in nice condition sold for a whopping **£460** recently – a huge amount to pay for any game. Two days later, a slightly scruffier copy with a missing cardboard flap and a little note on the inside of the box sold for just **£150**. That's still a lot, but far closer to our comfort zone.

Prices correct at time of print

A JOURNEY WITH THE N64

Here's what happened when Darran rebuilt his N64 collection

If you've read Retro Gamer for any length of time, you'll know that my biggest gaming regret was selling off my NTSC SNES collection of 60-plus games and trading it in for an Amiga 1200. My second biggest gaming regret was selling my gorgeous collection of 30-plus Nintendo 64 games in 1999, and late last year, 20 years after I closed that chapter of my gaming life, I decided to reopen it.

It all started off innocuously enough. It was 10pm on a Friday evening, and I was cruising the internet, looking at old game prices. I do this all the time, partly because it's my job to keep an eye on the prices of classic games, but mainly because I'm the kind of collector who is always looking for another luscious branch of retro goodness to grab on to, despite the fact that I live in a virtual forest of classic videogames, a sanctuary that features boughs practically breaking under the weight of great games.

My biggest Achilles heel is I find it impossibly difficult to ignore a bargain, or at least something I perceive to be a bargain. That Friday night browsing I was alternating between eBay and the gaming forum RLLMUK when I found a post for NTSC N64 games in the latter's trade section. The games were *Star Wars Episode I: Racer* and *Blast Corps*, and they were both under £15, which seemed staggeringly cheap to me. I got in touch with the seller and they turned up just before Christmas, and that was how it all started…

Before those two games turned up my N64 collection largely consisted of an N64 and an unused EverDrive. Now lots of people love using EverDrives as they can be stocked with virtually all the games you would ever want to play, but in my case it doesn't work. For me, owning a complete boxed game is gaming nirvana. There's something almost ritualistic about taking it out of its plastic protector, opening its box then plugging the cart into place and sitting down to play. I love every aspect of playing games, but the collecting side of it is just as important to me (to an extent, of course), and owning the physical product and being able to thumb through a glossy manual simply can't compete with a digital alternative.

Some have said that the collecting of games can be something of an illness, and I can personally see why that comparison is made. It's all too easy to go mad when buying games, hoovering up everything just because it's cheap (I did this during my Xbox phase) and it's a mistake that I've made many times in the past, and I'm sure some of you have as well. I was determined that I wasn't going to do that with my new collection, so I started to create a list – which is something I'd recommend anyone else that likes to collect games does too. My list was simple and split into three categories: games I used to own, games I had wanted to own and recommendations.

My daughter Emily was born in June 2000 and her incoming birth had sent me into a blind panic, a tailspin that convinced me I'd have no time for videogames anymore, so I sold everything I owned. You soon realise that while kids do change you in many ways, they don't fundamentally change the person you are, and as a result I started craving videogames again and I eventually bought a PS2 and later an Xbox and GBA (I can still remember rocking Emily's car seat with my foot while I powered through the final stages of *Halo*). I never forgot losing the N64 collection but I had too many distractions to even think about building it back up. It became forgotten and simply existed as happy memories and for many years that was enough.

When I played *Blast Corps* and *Racer* over Christmas, something jolted within me and I went back to RLLMUK and put in a request to see if anyone was selling any NTSC N64 games. I got lucky, very lucky. Someone reached out with what was essentially an instant collection of games on my list, which included *Banjo-Kazooie, Banjo-Tooie, Wave Race 64, GoldenEye 007, Perfect Dark, Star Fox, Mischief Makers* and *Donkey Kong 64*. I got the lot for £130, which I later discovered was a very good price.

Shortly afterwards, I bought some more games from them, including *Conker*, and then I started heading to eBay where I got a rather rude awakening. NTSC N64 games are crazy expensive compared to their PAL counterparts. There aren't many US games circulating in the UK marketplace, so the coveted items that do show up can sell for high prices. *Ocarina* sells for £70+ in good nick, *Smash Bros* goes for over £100, while *ISS 98* starts at £60 complete, a stark contrast to the £5 price the PAL version goes for. There's often a wide gulf between PAL and NTSC prices, but a PAL N64 was out of the question for me due to the poor optimisation of many of its games, so I bit the bullet and paid the prices.

I made my last N64 purchases in June (*ISS 98* and *Shadow Man*) and, outside of a handful of games, I largely own everything I've ever wanted and have rebuilt my original collection. I got some bargains in that six months of frenzied buying, I overpaid for a few things and spent around £1,800 on 55 games, an RGB-modded console, 23 issues of *N64* magazine and a Brawler 64 controller. But now I can rest. Now I feel… complete. ✱

STILL SEARCHING FOR...

THE NTSC N64 GEMS I'M STILL TRACKING DOWN

- HYDRO THUNDER
- INDIANA JONES AND THE INFERNAL MACHINE
- THE LEGEND OF ZELDA: MAJORA'S MASK
- MARIO TENNIS
- POKÉMON PUZZLE LEAGUE
- QUAKE 64
- ROBOTRON 64
- ROCKET: ROBOT ON WHEELS
- SNOWBOARD KIDS
- STAR SOLDIER: VANISHING EARTH

IT'S CERTAINLY NOT MY BIGGEST COLLECTION, BUT THIS IS PROBABLY THE MOST PERSONAL AND BEST-CURATED ONE I CURRENTLY OWN.
LITTLE DID I KNOW HOW COSTLY PICKING THESE TWO CHEAP GAMES UP WOULD ACTUALLY BE.
BLAST CORPS
STAR WARS EPISODE I RACER
PERFECT DARK
BANJO-TOOIE
STARFOX 64

THE N64 WAS THE LAST CONSOLE MY WIFE MELANIE HAD AN INTEREST IN BEFORE THE KIDS ARRIVED. IT WAS GREAT FUN HAVING MY DAUGHTER ALICE JOINING US FOR GOLDENEYE NOSTALGIA SESSIONS.
ANOTHER BUNDLE PAYS OFF! I PAID £110 AND SOLD GOLDENEYE AND PERFECT DARK FOR £45. MARIO CAN GO AS HIGH AS £70, SO AFTER SOME WORK I HAD A BARGAIN.
NGH MAGAZINE HAS BEEN VERY GOOD FOR FILLING GAPS IN MY KNOWLEDGE. I'LL PROBABLY AIM FOR A FULL SET.
I IGNORED DOOM 64 ON RELEASE. THIS WAS A MISTAKE AS IT'S AN EXCELLENT SHOOTER AND WELL WORTH THE £34 I PAID.
IN JANUARY I BOUGHT AN RGB-MODDED N64. THE IMAGE IS INFINITELY BETTER THAN A STANDARD MODEL AND LOOKS GREAT ON MY 29-INCH PVM.
COLLECTIONS CAN BE A GREAT WAY OF SAVING CASH. THIS LITTLE LOT WORKED OUT AT ROUGHLY £16 A GAME.
MANY THANKS TO TWITTER'S @TIMSON72 WHO SOLD ME THESE FOR A REASONABLE £120.
EX OCEAN ARTIST MARK JONES HAS SOME GREAT GAMES IN HIS COLLECTION.

HOW MANY DO YOU OWN?

Readers share their N64 collections with us

@RingGeneral
Around 50. *GoldenEye* holds the most memories for me, like when there was four of us and only had three controllers so someone had to use the steering wheel!

@LukeWholey
Over the last 20 years I have Collected about 24 N64 games (not counting digital or remakes). My favourite is *Ocarina Of Time* as it was like an amazing fantasy experience. It reminds me of when I used to watch *Knightmare* or *Chronicles Of Narnia* as a kid.

@jimstallone
190 with around 120 boxed. My favourite is easily *GoldenEye 007* with *Banjo-Kazooie* and *Ocarina Of Time* close behind. The best console I ever owned.

@zilognmotohost
Zero, because it's the worst, post-1990 console by far. (I don't expect this post to be published).

@Ch4os_Theory
30 at the moment. I'd love to say *Superman 64* (it's so bad it's good) but I'll go with *Blast Corps*. It was quite a unique premise for a game and very *Thunderbirds*-esque. A decent challenge, too, some of the levels were edge-of-the-seat stuff.

@MarkRJones1970
I have 71 physical N64 carts. All but two are boxed. My fav game now is *Quake II*. I can actually finish it, and I play it through every couple of years. The soundtrack is amazing and strangely stress-relieving. Didn't play it much BITD but discovered its qualities later.

MAILBAG

HAVE YOUR SAY... SEND US A LETTER OR MAKE YOURSELF HEARD ON THE ONLINE FORUM – **WWW.RETROGAMER.NET**

WIN!

Every month, one lucky writer-in will receive a spanking copy of either our NES/Master System or SNES/Mega Drive books

STAR LETTER

WHAT IS RETRO?

Dear **Retro Gamer**,
Can you tell me what you consider to be retro, because whenever I speak to someone about it I never get a straight answer from them. Some say it's games that came out in the Seventies and Eighties, but others say nothing past 16-bit qualifies. I've even had some people suggest that nothing beyond the 8-bit computers is retro, but that makes no sense, either. The one takeaway I do have is that a person's age appears to be a massive factor in the answer that's given. People appear to base retro on the games they grew up with and are instantly dismissive of anything later. This seems wrong to me, as people are different ages (I'm in my mid-thirties for example and grew up with the PlayStation) so will have different expectations. As you're a definitive source of retro gaming, any insight you could offer would be really appreciated.
Regards,
Dean Turner

Oh Dean, this is perhaps our most-asked question in the mag and as you've already discovered, the answer isn't straightforward at all, although you're absolutely right that people largely class retro as 'games I played when I was young'. Officially, we tend to class anything older than 15 years as fair game (although we will cover later games if they are on hardware that came out during our cut-off point). Essentially, the Xbox 360 could be considered retro now (it will be two generations old soon) but don't expect it in the mag anytime soon.

» [Xbox 360] *Perfect Dark Zero* may be 'technically' retro, but don't expect a dedicated article about it for a while.

OSTRICH WARRIORS

Hi **Retro Gamer**,
Am I going mad or did an arcade game once come out that let you ride an ostrich? I can't remember if it's a fever dream or not, but I definitely recall an arcade game that let you ride around on the flightless bird and kill things. Great mag, by the way.
James Morris

Don't worry James, you're not mad. We're confident you're remembering *Battle Circuit*. It's easy to play, too, as the scrolling fighter features on the *Capcom Beat-'em-up Bundle* with six other games.

» [PC] You can now enjoy ostrich-riding action on all modern consoles, courtesy of Capcom.

ARCADES FOREVER

Hey **Retro Gamer!**
First of all, great magazine. It brings back lots of great memories being a kid growing up in the Eighties and Nineties. My favourite memories have to be of the arcades! As a kid we always looked forward to going on holiday and going to the arcades. There was a small one right by the caravan site called Sheila's (it's not there now). You would walk past the slot machines, 2p and 10p machines, past the change guy and there, right at the back, were the arcade machines. *Space Invaders*, *Pac-Man*, *Double Dragon*, *Super Hang-On*, *Operation Wolf* (my dad's favourite!) and many more. I would love to see an issue or book devoted solely to the Eighties and Nineties arcade experience. Great memories!
John Hayes

We're glad you love the magazine, John. We've covered plenty of arcade classics but you might be interested in issue 127 as that had a huge feature dedicated to arcade games. You can also buy *Book Of Arcade Classics* from magazinesdirect.com.

» [Arcade] John's dad was a big fan of *Operation Wolf*. We can't blame him, it's a great game.

» [PC] Austin wants to see more coverage of games such as *NHL 2003*.

HOCKEY RULES

G'day,
As you may be able to tell, I'm a reader from Australia and I agree with my Canadian mate that **Retro Gamer** should chronicle the history of ice hockey games. There are some big names to consider: *Ice Hockey* on the NES, *Blades Of Steel* and the NHL licensed titles dating back to when they were NHLPA games. Remember the epic fight scene in the movie *Swingers*? There were also the likes of *Brett Hull Hockey*, *Wayne Gretzky* and *Olympic Hockey* as well as *Street Hockey*.
No need to cover AFL, though...
Austin Dewey

Thanks for getting in touch Austin. We certainly remember that *Swingers* scene. We'll take a look at some of your suggestions and go from there.

YOUR MOVE

Hey Darran,
Great magazine, and I hope all is well in these strange times. Has your magazine ever done an article on the chess games across all machines? Years and years ago, when I had

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a Spectrum, I tried to set up a contest between my friends (who are much stronger chess players than me) against some of the chess programs I had (*Psion Chess*, *Cyrus IS Chess*, etc).

Humans seemed to win vs the AI all the time, though for me I got beat even on simple chess. With emulation, I am trying to get matches between programs, feeding the moves into each to see which ones fare best. Some programs on high levels can take a while to move but maybe I can speed up the emulation to handle that.

So far I found that *Psion Chess* beats *Chess – The Turk* (Spectrum) level three, and *Dreamchess* (Linux Mint) beats *Cyrus IS Chess* (Spectrum), again level three.

There must be many chess games out there, so to compare them all would be interesting I think. Have they improved much since Deep Blue beat a grandmaster?
Regards,
Doug Lithgow

That's a really fascinating project you have going on there, Doug. It would probably make for a really great feature in the magazine at one point.

» Nick approves of Steve's multiple Dreamcasts. Apparently, you can never have too many.

WHAT NOW?

Hi **Retro Gamer**,
I took a punt at a subscription to your magazine and am very glad I did so! I was pleasantly surprised and impressed with the well-balanced content that not only covers retro consoles, but features excellent articles about retro computers as well… thank you very much!

At the start of the COVID pandemic (where the whole household was shielding) I took the plunge and finally decided to take the opportunity to sort out my geek room. I must admit that this has caused much frustration on my partner's part, as I have spent months now getting it to a state that I am nearly happy with. My only concern now is what can I do once I am finally happy with it? So **Retro Gamer**, do you have any advice or ideas?
Best regards,
Steve Allardyce

We guess the only thing to do now, Steve, is to enjoy playing your games. It becomes all too easy to simply look towards the next purchase rather than focus on the stuff you have. You've got a great selection of systems so have some fun with them.

DISCUSSED THIS MONTH

Sweet, sweet 116

This issue of Retro Gamer is quite remarkable as we're back to our usual 116 pages. It's been a difficult time for magazines (and anywhere else, for that matter) so being able to go back to our usual page count has been a rather nice feeling. We couldn't have done this without your support, so thank you so much! It's also given us the opportunity to tweak the back-end of the mag, too (something we've been meaning to do for ages) so hopefully you'll enjoy the new stuff we've added.

Your say

Every month, Retro Gamer asks a question on social media and prints the best replies. This month we wanted to know…
What's your favourite Prince Of Persia game?

» [PS3] The 2008 version of *Prince Of Persia* isn't for everyone, but Brynjólfur enjoyed it.

James Mitchell
The Sands Of Time was SO MUCH FUN. Great mechanics, story, effects, combat, it had the lot. It was a game with a lot of heart as well.

@FodderHubbard
The Sands Of Time. Perfect blend of great storytelling, art and gameplay all in one.

@Lord_Arse
Jordan Mechner's original. Without this game we wouldn't have had other wonderful cinematic platformers such as *Another World*, and it even inspired *Tomb Raider*. What more can you say?

@Alexpletives
The Sands Of Time. Beautiful in art and story. Plus the Xbox version had lovely particle effects for the sand.

James Wardle
It has to be *The Sands Of Time*. The sarcastic and witty Prince made it special in a time when voiced characterisation was just becoming a thing in games.

@ShiryuGL
The Masaya (NCS) uncensored Super Famicom version of the game will always be the best one for me. It took the original and expanded it in ways that blew my mind. Incredible graphics and soundtrack. The miraculous Game Boy conversion is a close second.

Tom Clark
The original. That 60-minute time limit added a whole new level of pressure. Jack Bauer had nothing on nine-year-old me and my Game Boy.

@Retroman_Dan
For me, *Warrior Within*. Not a popular choice, but I loved the darker tone at the time and the heavier focus on combat.

Brynjólfur Erlingsson
Prince Of Persia (2008) was a gorgeous-looking game with some real artistic flair. Clearly inspired by Team Ico games in both look, feel and design. Not perfect in the gameplay department, although a lot smoother controls than *Ico* or *Shadow Of The Colossus*, and a bit repetitive, but it's the one I love the most in the series.

@HippieDalek
The original on DOS. I spent so much of my youth mastering the game, I bet even now I could complete it in under 40 minutes in my sleep. None of the sequels or reboots have come close to the flow and elegance of the first one.

retro GAMER

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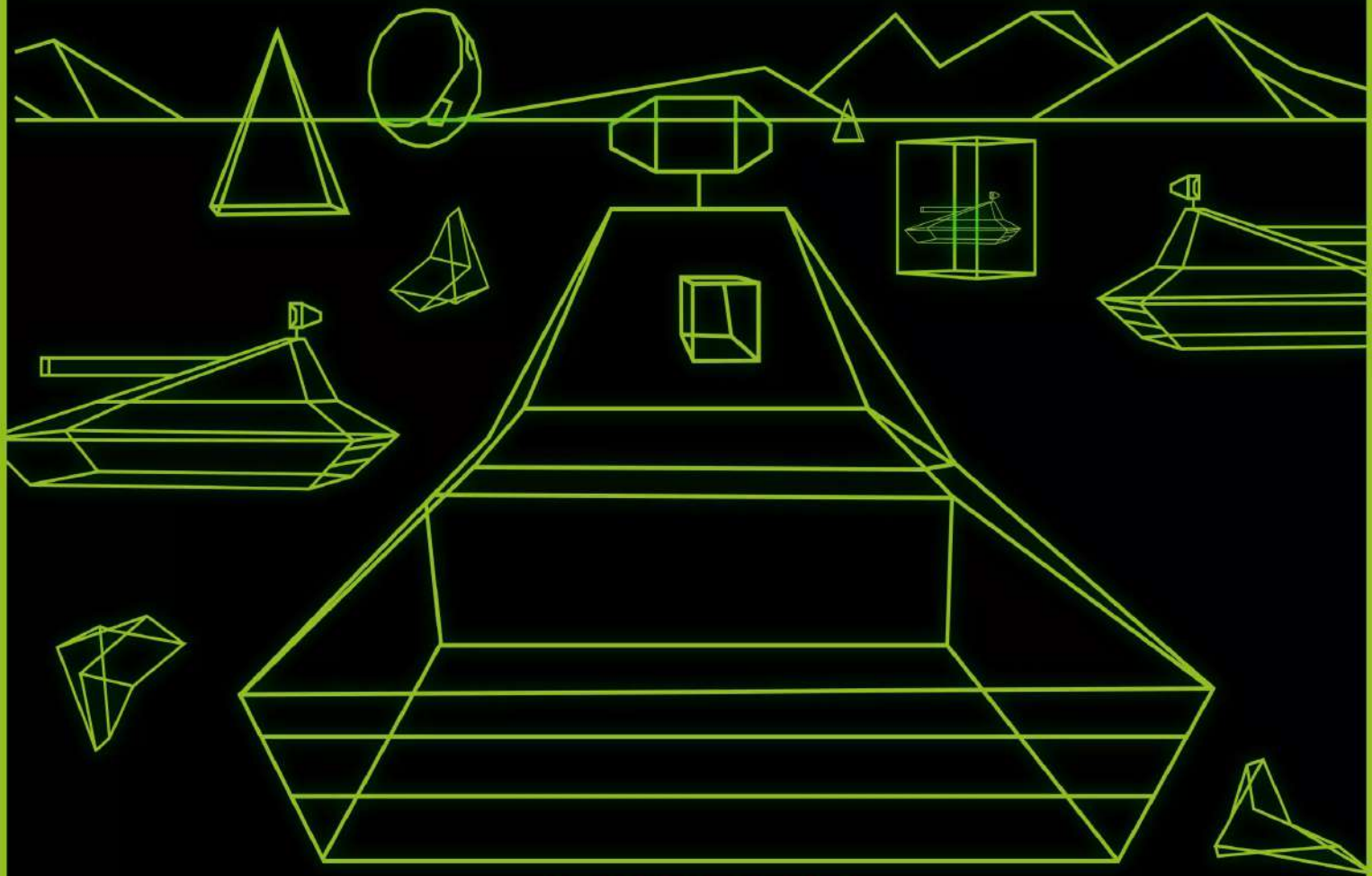

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ENDGAME

PHANTASY STAR II

» You know Phantasy Star, right? Sega's RPG series combines old-fashioned swords and sorcery with space travel and robots to create a unique sci-fi fantasy world, where heroes fight the forces of evil and save the world. Well, that's how the first game goes, and we *think* things are similar in the sequels, anyway. We'd better just check to make sure. Let's skip to the ending and see if we were right...

01

» Rolf and the party have destroyed Mother Brain, the corrupted computer responsible for terrorising the Algol star system. The loss of its climate control functions will make things hard, but the heroes finally have hope for the future.

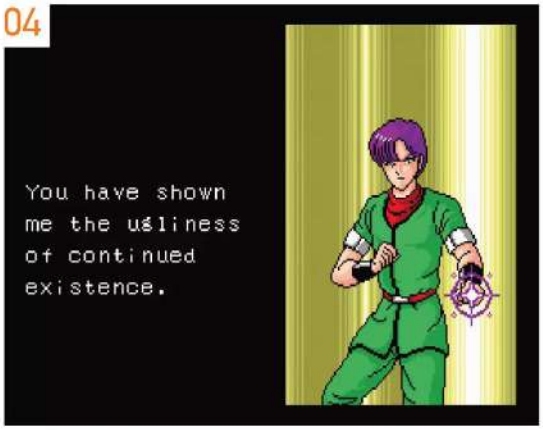
02

» Suddenly, hundreds of humans show up, and they're real mad at the heroes for smashing Mother Brain to smithereens. You see, these guys just so happened to make it, in order to exploit Mota for their own selfish lifestyles.

03

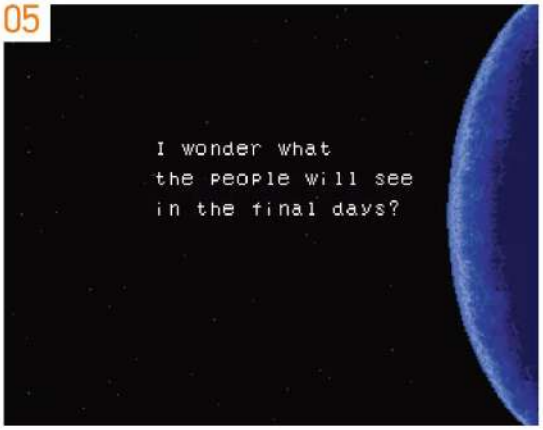
» Why would they do that? Well, they're from this other planet that they kind of wrecked, called Earth. They've decided they'd quite like to take over Mota, and now our heroes have got to fight several hundred of them.

04



» Nei is dead, biomonsters have ravaged Mota, Palm has been destroyed outright, and this is the thanks the crew gets? Hugh Thompson, our resident scientist, is flat out *done*. If this is what Earth has done in the name of survival, then frankly the people of Earth deserve to perish.

05



» This has been a tale of personal tragedies and mass extinction events, and even if your heroes manage to stop the Earthlings, they've got a medieval existence on a dying world to look forward to. Everything is worse now, despite (and sometimes because of) your actions. This is 'victory.' Enjoy it.

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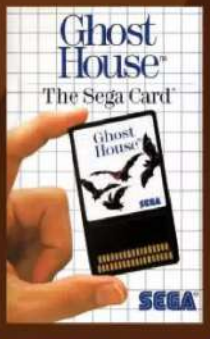

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